

SCORE Search Results Details for Application 10536880 and Search Result 20070125_140747_us-10-536-880-a-27.rag.

Score :Home Page Retrieve.ApplicationList SCORE System.Overview SCORE FAQ Comments / Suggestions

This page gives you Search Results detail for the Application 10536880 and Search Result 20070125_140747_us-10-536-880-a-27.rag.

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OM protein - protein search, using sw model
Run on: January 28, 2007, 08:29:27 ; Search time 216 Seconds
(without alignments)

Sequence: 1 HSDAIFTDSYRVRQLAVVLAIVLGRRI 30

Scoring table: BLOSUM62

GAPOP 10.0 , Gapext 0.5

Searched: 2782304 seqs, 48933398 residues

Total number of hits satisfying chosen parameters: 2782304

Minimum DB seq length: 0

Maximum DB seq length: 200000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database : A_Geneseq_200701:*

1: geneseq1980s:*

2: geneseq1980s:*

3: geneseq2000s:*

4: geneseq2001s:*

5: geneseq2002s:*

6: geneseq2003as:*

7: geneseq2003bs:*

8: geneseq2004s:*

9: geneseq2005s:*

10: geneseq2006s:*

11: geneseq2007s:*

1:	Adp09604	PACAP/VIP
2:	Adp09602	PACAP/VIP
3:	Adp05662	Novel ant
4:	Adp05660	Novel ant
5:	Adt8475	Vasoactiv
6:	Adt8477	Vasoactiv
7:	Adp09605	PACAP/VIP
8:	Adp05664	Novel ant
9:	Adt8479	Vasoactiv
10:	Adp09603	Pituitary
11:	Adp09603	PACAP/VIP
12:	Adp05661	Novel ant
13:	Adp09606	PACAP/VIP
14:	Adp05665	Novel ant
15:	Adt8479	Vasoactiv
16:	Aed86828	Pituitary
17:	Adp09603	Pituitary
18:	Aav10334	Synthetic
19:	Adb61607	Conformat
20:	Adp09606	PACAP/VIP
21:	Adp05665	Novel ant
22:	Adt8480	Vasoactiv
23:	Aed86829	Pituitary
24:	Adt8474	Vasoactiv
25:	Adp05444	Bronchodi
26:	Abd07022	Neurite i
27:	Adb61594	Conformat
28:	Adp09581	Pituitary
29:	Adp09582	PACAP/VIP
30:	Adt05659	Novel ant
31:	Adp05663	Novel ant
32:	Adp09604	PACAP/VIP
33:	Adb61594	Neurite i
34:	Adp09582	Pituitary
35:	Aav10335	Synthetic
36:	Aab2124	Pituitary
37:	Adp09604	PACAP/VIP
38:	Adp09604	PACAP/VIP
39:	Adb61606	Conformat
40:	Adp09582	Pituitary
41:	Adt05658	Novel ant
42:	Adp09604	PACAP/VIP
43:	Adt8473	Vasoactiv
44:	Aay05443	Bronchodi
45:	Abd07021	Neurite i

ALIGNMENTS

RESULT 1
ID ADP09604 standard; peptide: 30 AA.
XX
AC ADP09604;
XX DT 26-AUG-2004 (first entry)
XX DE PACAP/VIP derived peptide sequence SeqID 29.
XX FW pituitary adenylyl cyclase activating polypeptide; PACAP;
FW vasoactive intestinal peptide; VIP; bronchus smooth muscular relaxation;
FW gastrointestinal-tract movement suppression;
FW optic-nerve degenerative disease; retina degenerative disease; toxicity;

SUMMARIES

Result Query Match Length DB ID Description
No. No. Score No. ItemName=20070125_14... 1/30/2007
http://es/ScoreAccessWeb/GetItem.action?AppId=10536880&seqId=1073663&ItemName=20070125_14... 1/30/2007

SCORE Search Results Details for Application 10536880 and Search Result 20070125_140749_us-10-5... 27.rup.

Score.Home.Page Retrieve.Application.List SCORE_System.Overview SCORE_FAQ Comments/_Suggestions

This page gives you Search Results detail for the Application 10536880 and Search Result 20070125_140749_us-10-5... 27.rup.
start

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On protein - protein search, using sw model

Run on: January 28, 2007, 08:33:06 ; Search time 345 Seconds

(without alignments)
93.228 Million cell updates/sec

Title: US-10-536-880A-27

Perfect score: 150

Sequence: 1 HSDAIFTDSYRSYRQLAVRYLAAVIGRR 30

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 3281787 seqs, 1072124677 residues

Total number of hits satisfying chosen parameters: 3281787

Minimum DB seq length: 0

Maximum DB seq length: 200000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database : UniProt_B_4:*

1: uniprot_sprot:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No. Score Query Match Length DB ID Description

Result No.	Score	Query	Match Length	DB ID	Description
1	135	90.0	175	2 Q90XZ4_ICTPU	Q90XZ4 ictalurus p
2	135	90.0	195	1 PACA_CLAMA	P48144 claritas mac
3	134	89.3	38	1 PACA_UPAJA	P81039 uranoscopus
4	134	89.3	38	2 Q75W89_9PERC	Q75W89 sebastiscus
5	134	89.3	170	2 Q4R443_TETING	Q4R443 tetraodon n
6	132	88.0	38	2 Q75W94_HALRO	Q75W94 halocyathia
7	132	88.0	38	2 Q81U37_SEPIE	Q81U37 sepioteuthi
8	132	88.0	38	2 Q81U36_PERAM	Q81U36 periplaneta

http://es/ScoreAccessWeb/GetItem.action?AppId=10536880&seqId=1073664&itemName=20070125_14...

1/30/2007

9	132	88.0	38	2 Q81U38_HYDMA	Q81U38 hydra magni
10	132	88.0	38	2 Q81U39_DUGJA	Q81U39 digesia jap
11	132	88.0	38	2 Q75W92_9PERC	Q75W92 stephanolep
12	132	88.0	38	2 Q75W87_ONCMY	Q75W87 oncorhynchus
13	88.0		38	2 Q75W90_sardinops_m	Q75W90 sardinops m
14	132	88.0	38	2 Q8AYP4_ACISC	Q8AYP4 acipenser s
15	132	88.0	38	2 Q8AYP5_TRAJP	Q8AYP5 trachurus j
16	132	88.0	45	2 Q12B59_PODSI	Q12B59 podarcis si
17	132	88.0	62	2 Q53B14_BUNHO	Q53B14 bunopitheci
18	132	88.0	62	2 Q5B113_PONYU	Q5B113 pony puma
19	132	88.0	62	2 Q53B15_MACMU	Q53B15 macaca mulatta
20	132	88.0	62	2 Q53B12_9PRIM	Q53B12 gorilla gorilla
21	132	88.0	109	2 Q12YS1_RABIT	Q12YS1 oryzolagus
22	132	88.0	138	2 Q9SP4_ONCMY	Q9SP4 oncorhynchus
23	132	88.0	139	2 Q53BH1_HUMAN	Q53BH1 homo sapien
24	132	88.0	139	2 Q5B1B0_PANTR	Q5B1B0 pan troglodytes
25	132	88.0	161	2 Q5F1F0_9PRIM	Q5F1F0 salimiri boliviensis
26	132	88.0	162	2 Q5IFK8_PANTR	Q5IFK8 pan troglodytes
27	132	88.0	162	2 Q5GM0_MACFA	Q5GM0 macacus fasciatus
28	132	88.0	170	2 Q8J5TB_MOUSE	Q8J5TB mus musculus
29	132	88.0	171	1 PACA_RANRI	P135B9 r glaucagon
30	132	88.0	171	2 Q9PUFB_XENLA	Q9PUFB xenopus laevis
31	132	88.0	173	1 PACA_ONCNE	P41585 oncorthynchus tauricus
32	132	88.0	173	1 PACA_HUMAN	P18505 h sapiens
33	132	88.0	173	2 Q4RN19_TEETING	Q98SP5 oncorhynchus tshawytscha
34	132	88.0	175	1 PACA_MOUSE	P070176 m pituitary gland
35	132	88.0	175	1 PACA_RAT	P135B9 r pituitary gland
36	132	88.0	175	2 Q3D9H8_MUS_MUSCULU	Q3D9H8 mus musculus
37	132	88.0	176	1 PACA_BOVIN	P29w19 b bos taurus
38	132	88.0	176	1 PACA_HUMAN	P18505 h sapiens
39	132	88.0	176	1 PACA_PIG	P41535 s sus scrofa
40	132	88.0	176	1 PACA_SHEEP	P16613 o ovicapra aries
41	132	88.0	176	2 Q512Q0_HUMAN	Q512Q0 homo sapiens
42	130	86.7	38	2 Q75W88_ERIOHEIR	Q75W88 eriocheirus amurensis
43	129	86.0	38	2 Q75W93_CYCUA	Q75W93 cyprinus carpio
44	129	86.0	140	2 Q5KJ02_BRARE	Q5KJ02 brachydanio rerio
45	129	86.0	175	2 Q98T03_BRARE	Q98T03 brachydanio rerio

ALIGNMENTS

RESULT 1	Q90XZ4_ICTPU	PRELIMINARY:	PRY:	175 AA.
ID	O90XZ4_ICTPU			
AC				
DT	01-DEC-2001	integrated into UniProtKB/TREMBL.		
DR	01-DEC-2001	sequence version 1.		
DT	07-FEB-2006	entry version 18.		
DB	Growth hormone-releasing hormone/pituitary adenylyl cyclase-activating polypeptide precursor.			
OS	Ictalurus punctatus (Channel catfish)			
OC	Eukarya; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Actinopterygii; Neopterygii; Teleostei; Ostariophysi; Siluriformes; Ictaluridae; Ictalurini.			
CC	NCBI_TaxID: 7996;			
[1]				
RN	NUCLEOTIDE SEQUENCE.			
RX	MEDLINE:21255738; PubMed:11356048; DOI:10.1006/gcen.2001.7651;			
RA	Small B.C., Nonneman D.;			
RT	*Sequence and expression of a cDNA encoding both pituitary adenylyl cyclase-activating polypeptide and growth hormone-releasing hormone-like peptide in channel catfish.			
RT	Gen. Comp. Endocrinol. 122:354-363 (2001).			
CC				

http://es/ScoreAccessWeb/GetItem.action?AppId=10536880&seqId=1073664&itemName=20070125_14...

1/30/2007

SCORE Search F

Score_Home Page Retrieve Application List SCORE System_Overview SCORE FAQ Comments / Suggestions

This page gives you Search Results detail for the Application 10536880 and Search Result 20070125_140752_us-start

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OM protein - protein search, using sw model

Perfect score: 150

Sequence: 1 HSDAIDFTDSRYSRQLAVRYLAAVLGRR 30

Scoring table: BLOSUM62
Gapop 10.0 . Gapext 0.5

Searched:

283416 seqs, 96216763 residues
Total number of hits satisfying chosen Parameters: 283416

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database : PIR:80:

1: pir1:
2: pir2:
3: pir3:
4: pir4:

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Match	Length	DB ID	Description
1	135	90.0	195	2 I50056	pituitary adenylyl cyclase activating polypeptide - Siamese catfish
2	132	88.0	38	2 A49465	pituitary adenylyl cyclase activating polypeptides prec
3	132	88.0	173	2 S34767	pituitary adenylyl cyclase duplication
4	132	88.0	175	2 A37786	pituitary adenylyl cyclase
5	132	88.0	176	2 I84638	pituitary adenylyl cyclase
6	132	88.0	176	2 A34044	pituitary adenylyl cyclase
7	126	84.0	38	2 A61070	pituitary adenylyl cyclase
8	119	79.3	27	2 A61071	pituitary adenylyl cyclase
9	108.5	72.3	165	1 VRCH	vasoactive intesti
10	100.5	67.0	58	1 VRGP	vasoactive intesti
11	100.5	67.0	145	2 A60308	vasoactive intesti

12	100.5	67.0	170	1 VRHU	vasoactive intesti
13	100.5	67.0	170	1 VRTR	vasoactive intesti
14	100.5	67.0	170	2 A60337	vasoactive intesti
15	98	65.3	28	2 B60071	vasoactive intesti
16	98	65.3	28	2 A6104	vasoactive intesti
17	98	65.3	55	1 VRBO	vasoactive intesti
18	98	65.3	55	1 VRBB	vasoactive intesti
19	98	65.3	55	1 VRSH	vasoactive intesti
20	97	64.7	28	2 A61033	vasoactive intesti
21	95	63.3	25	2 J00161	vasoactive intesti
22	95	63.3	55	1 VRGP	vasoactive intesti
23	94	62.7	28	2 A3232	vasoactive intesti
24	92	61.3	35	1 HKGDH	exendin-2 - Gila m exendin-1 - Mexico
25	76	50.7	38	1 HKRS	secretin - chicken
26	69	46.0	104	2 A3731	somatotropin prec
27	64	42.7	44	1 RHOS	somatotropin - bo
28	64	42.7	44	1 RHPS	somatotropin - pi
29	64	42.7	108	1 RHUS	secretin precursor
30	60	40.0	131	1 SEPG	secretin precursor
31	58	38.7	133	2 JC2202	secretin - chicken
32	56	37.3	27	1 SECH	secretin precursor
33	56	37.3	134	2 A40959	secretin precursor
34	55	36.7	103	2 A41410	somatotropin prec
35	53	35.3	127	2 E9298	conserved hypothet
36	52	34.7	289	2 B8955	hypothetical prote
37	52	34.7	324	2 S70000	hypothetical prote
38	50.5	33.7	957	2 T15976	hypothetical prote
39	50	33.3	31	2 S4472	glucagon G2 - Nort
40	49.5	33.0	168	2 AE055	probable lipoprote
41	49	32.7	27	2 N22267	secretin dog
42	49	32.7	421	2 C8147	gamma-glutamyl pho
43	49	32.7	636	2 T10569	probable serine/th
44	49	32.7	772	2 C63990	transcription regu
45	48.5	32.3	252	2 F87259	hypothetical prote

ALIGNMENTS

RESULT 1	I50456	Pituitary adenylyl cyclase activating polypeptide - Siamese catfish
	C;Species: Charias macrocephalus (Siamese catfish)	
	C;Date: 01-Sep-1997 #sequence_revision 04-Sep-1997 #text_change 09-Jul-2004	
	C;Accession: I50456	R;McRory, J. E.; Parker, D. B.; Ngamvongchon, S.; Sherwood, N.M.
	R;McRory, J. E.; Parker, D. B.; Ngamvongchon, S.; Sherwood, N.M.	Mol. Cell. Endocrinol. 108, 169-177, 1995
	A;Title: Sequence and expression of cDNA for pituitary adenylyl cyclase activating polypeptide (PAP)	A;Reference number: I50456; MUID: 95278612; PMID: 7758831
	A;Accession: I50456	A;Status: preliminary; translated from GB/EMBL/DDJB
	A;Molecule type: mRNA	A;Cross-references: UNIPROT:P48144; UNIPARC:UPI00001311D3; EMBL:X79078; PIDN:G808949; PIDN:CA455684.
	C;Genetics:	
	A;Gene: PCAP	
	C;Superfamily: glucagon	
	C;Keywords: duplication	
	Query Match	Score 135 ; Pred. No. 26-12 ; Length 195;
	Best Local Similarity	83.3% ; Ped. No. 26-12;
	Matches 25 ; Conservative 4 ; Mismatches 1 ; Indels 0 ; Gaps 0 ;	Qy 1 HSDAIFDTSYRYSRQLAVRYLAALVGR 30

10/536880

10/536880

> file registry
'REGISTRY' ENTERED AT 12:18:30 ON 30 JAN 2007
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STRUCTURE FILE UPDATES: 29 JAN 2007 HIGHEST RN 918776-45-1
DICTIONARY FILE UPDATES: 29 JAN 2007 HIGHEST RN 918776-45-1

New CAS Information Use Policies, enter HELP USAGETERMS for details.
ZSCA INFORMATION NOW CURRENT THROUGH June 30, 2006

Please note that search-term pricing does apply when
conducting SMARTSEARCH searches

10/536880

10/536880

SQL	30	HSDAVFTENY TRLRLQLAVR RYLATIIGRR	HITS AT:
NTE	modified	=====	1-25
type	-----	location -----	
terminal mod.	His-1	N-acetyl	
terminal mod.	Arg-30	C-terminal amide	
LC	STN Files:	CA, CAPLUS	
NTE	modified	-----	
type	-----	location -----	
terminal mod.	Arg-30	Arg-30	C-terminal amide
SQL	30	valyl-L-phenylalanyl-L-threonyl-L-d-aspartyl-L-seryl-L-tyrosyl-L- seryl-L-arginyl-L-tyrosyl-L-arginyl-L-arginyl-L-glutamyl-L-leucyl-L- alananyl-L-valyl-L-arginyl-L-arginyl-L-tyrosyl-L-leucyl-L-alanyl-L-alanyl-L- valyl-L-leucylglycyl-L-arginyl- (SCI) (CA INDEX NAME)	
NTE	modified	-----	
type	-----	location -----	
terminal mod.	Arg-30	Arg-30	C-terminal amide
LC	STN Files:	CA, CAPLUS	
NTE	modified	-----	
type	-----	location -----	
terminal mod.	Arg-30	Arg-30	C-terminal amide
SQL	30	valyl-L-phenylalanyl-L-threonyl-L-d-aspartyl-L-seryl-L-tyrosyl-L- seryl-L-arginyl-L-tyrosyl-L-arginyl-L-arginyl-L-glutamyl-L-leucyl-L- alananyl-L-valyl-L-arginyl-L-arginyl-L-tyrosyl-L-leucyl-L-alanyl-L-alanyl-L- valyl-L-leucylglycyl-L-arginyl- (SCI) (CA INDEX NAME)	
NTE	modified	-----	
type	-----	location -----	
terminal mod.	Arg-30	Arg-30	C-terminal amide
LC	STN Files:	CA, CAPLUS	
NTE	modified	-----	
type	-----	location -----	
terminal mod.	Arg-30	Arg-30	C-terminal amide

```

SEQ      1 HSDAVFTDSY SRYRQLAVR RYLAALVGR
        =====
HITS AT: 1-25

***** RELATED SEQUENCES AVAILABLE WITH SEQLINK**

ANSWER 5 OF 30 REGISTRY COPYRIGHT 2007 /  

RN 868367-97-9 REGISTRY  

CN L-Arginylamido, L-histidyl-L-seryl-L- $\alpha$ -aspar-  

phenylalanyl-L-threonyl-L- $\alpha$ -aspartyl-L- $\beta$ -se-  

arginyl-L-tyrosyl-L-arginyl-L-arginyl-L-g-  

vanyl-L-arginyl-L-arginyl-L-tyrosyl-L-leu-  

L-leucylglycyl-L-arginyl- (9CI) (CA INDEX  

SOI modified 30

```

type	-----	location	-----
terminal mod.	Arg-30	-	C-tel
LC	STN Files:	CA, CAPUS	location
NTTE	modified		type

10/536880

SQ1 30
NTE modified

type terminal mod. Arg-30 location ----- description C-terminal amide

LC STN Files: CA, CAPUS NTE modified

type terminal mod. Arg-30 location ----- description C-terminal amide

SEQ 1 HSDAVFTENY TRFLRQLAVR RYLAAILGRR
===== ======

HITS AT: 1-25

** RELATED SEQUENCES AVAILABLE WITH SEQLINK **

L8 ANSWER 7 OF 30 REGISTRY COPYRIGHT 2007 ACS ON STN
RN 868167-70-8 REGISTRY
CN L-Argininamide, N-acetyl-L-histidyl-L-seryl-L- α -aspartyl-L-alanyl
valyl-L-phenylalanyl-L-threonyl-L- α -aspartyl-L- α -asparaginyl-L-tyro-
L-threonyl-L-arginyl-L-leucyl-L-arginyl-L-arginyl-L-glutamyl-L-
alanyl-L-valyl-L-argonyl-L-tyrosyl-L-arginyl-L-leucyl-L-alanyl-L-
isoleucyl-L-leucylglycyl-L-arginyl- (9CI) (CA INDEX NAME)
SQL 30
NTE modified

type terminal mod. His-1 location ----- description N-acetyl

terminal mod. Arg-30 location ----- description C-terminal amide

LC STN Files: CA, CAPUS NTE modified

type terminal mod. Arg-30 location ----- description C-terminal amide

SEQ 1 HSDAVFTENY TRFLRQLAVR RYLAAILGRR
===== ======

HITS AT: 1-25

** RELATED SEQUENCES AVAILABLE WITH SEQLINK **

L8 ANSWER 8 OF 30 REGISTRY COPYRIGHT 2007 ACS ON STN
RN 868167-65-1 REGISTRY
CN L-Argininamide, L-histidyl-L-seryl-L- α -aspartyl-L-alanyl-L-valyl-L-
phenylalanyl-L-threonyl-L- α -aspartyl-L- α -asparaginyl-L-tyrosyl-L-
threonyl-L-arginyl-L-leucyl-L-arginyl-L-arginyl-L-glutamyl-L-leucy-
alanyl-L-valyl-L-argonyl-L-tyrosyl-L-arginyl-L-leucyl-L-alanyl-L-
isoleucyl-L-leucylglycyl-L-arginyl- (9CI) (CA INDEX NAME)
SQL 30
NTE modified

10/536880

type location description

terminal mod. Arg-30 C-terminal amide

LIC STN Files: CA, CAPLUS

type location description

terminal mod. Arg-30 C-terminal amide

SEQ 1 HSDAIFTDSY SYRQRQLAVR RYLAALIGRR YRQVRVNR
HITS AT: 1-25

***RELATED SEQUENCES AVAILABLE WITH SEQLINK**

L8 ANSWER 9 OF 30 REGISTRY COPYRIGHT 2007 ACS on STN
RN 735801-36-2 REGISTRY
CN L-Argininamide, L-histidyl-L-seryl-L-α-aspartyl-L-alanyl-L-phenylalanyl-L-threonyl-L-α-aspartyl-L-seryl-L-tyrosyl-L-arginyl-L-tyrosyl-L-arginyl-L-tyrosyl-L-tyrosyl-L-leucyl-L-alanyl-L-valyl-L-leucylglycyl-L-arginyL-38 (CA INDEX NAME)

SQL NTE modified

type location description

terminal mod. Arg-38 C-terminal amide

LIC STN Files: CA, CAPLUS

type location description

terminal mod. Arg-38 C-terminal amide

SEQ 1 HSDAIFTDSY SYRQRQLAVR RYLAALIGRR YRQVRVNR
HITS AT: 1-25

***RELATED SEQUENCES AVAILABLE WITH SEQLINK**

L8 ANSWER 10 OF 30 REGISTRY COPYRIGHT 2007 ACS on STN
RN 735801-35-1 REGISTRY
CN L-Argininamide, L-histidyl-L-seryl-L-α-aspartyl-L-isoleucyl-L-phenylalanyl-L-threonyl-L-α-aspartyl-L-seryl-L-tyrosyl-L-arginyl-L-tyrosyl-L-arginyl-L-tyrosyl-L-leucyl-L-alanyl-L-leucylglycyl-L-arginyL-38 (CA INDEX NAME)

SQL NTE modified

type location description

terminal mod. Arg-38 C-terminal amide

LIC STN Files: CA, CAPLUS

type location description

terminal mod. Arg-38 C-terminal amide

SEQ 1 HSDAIFTDSY SYRQRQLAVR RYLAALIGRR YRQVRVNR
HITS AT: 1-25

***RELATED SEQUENCES AVAILABLE WITH SEQLINK**

L8 ANSWER 11 OF 30 REGISTRY COPYRIGHT 2007 ACS on STN
RN 735801-33-9 REGISTRY
CN L-Argininamide, N-acetyl-L-histidyl-L-seryl-L-α-aspartyl-L-alanyl-L-isoleucyl-L-phenylalanyl-L-threonyl-L-α-aspartyl-L-seryl-L-tyrosyl-L-arginyl-L-tyrosyl-L-arginyl-L-glutaminyl-L-leucyl-L-alanyl-L-valyl-L-leucylglycyl-L-arginyL-30 (CA INDEX NAME)

SQL NTE modified

type location description

terminal mod. His-1 N-acetyl
terminal mod. Arg-30 C-terminal amide

LIC STN Files: CA, CAPLUS

type location description

terminal mod. Arg-30 C-terminal amide

SEQ 1 HSDAIFTDSY SYRQRQLAVR RYLAALIGRR YRQVRVNR
HITS AT: 1-25

***RELATED SEQUENCES AVAILABLE WITH SEQLINK**

L8 ANSWER 12 OF 30 REGISTRY COPYRIGHT 2007 ACS on STN
RN 735801-32-8 REGISTRY
CN L-Argininamide, L-histidyl-L-seryl-L-α-aspartyl-L-alanyl-L-isoleucyl-L-phenylalanyl-L-threonyl-L-α-aspartyl-L-seryl-L-tyrosyl-L-arginyl-L-tyrosyl-L-arginyl-L-tyrosyl-L-leucyl-L-alanyl-L-leucylglycyl-L-arginyL-30 (CA INDEX NAME)

SQL NTE modified

type location description

			10/536880
terminal mod.	Arg-30	-	C-terminal amide
LC STN Files:	CA, CAPLUS	-	
NTE modified		-	
type	location	-----	description
terminal mod.	Arg-30	-	C-terminal amide
SEQ	1 HSDAIFTDSY SRYRQLAVR RYLAALIGRR	=====	
HITS AT:	1-25	=====	**RELATED SEQUENCES AVAILABLE WITH SEQLINK**
LB	ANSWER 13 OF 30 REGISTRY COPYRIGHT 2007 ACS on STN	=====	
RN	735801-31-7 REGISTRY	=====	
CN	L-Argininamide, L-histidyl-L-seryl-L- α -aspartyl-L-alanyl-L-isoleucyl-L-phenylalanyl-L-threonyl-L- α -aspartyl-L-seryl-L-tyrosyl-L-seryl-L-arginyl-L-tyrosyl-L-arginyl-L-leucyl-L-leucyl-L-alanyl-L-valyl-L-leucylglycyl-L-arginyL-(9CI) (CA INDEX NAME)	=====	
SOL	30 NTE modified	=====	
type	location	-----	description
terminal mod.	Arg-30	-	C-terminal amide
LC STN Files:	CA, CAPLUS	-	
NTE modified		-	
type	location	-----	description
terminal mod.	Arg-30	-	C-terminal amide
LC STN Files:	CA, CAPLUS	-	
NTE modified		-	
type	location	-----	description
terminal mod.	Arg-30	-	C-terminal amide
SEQ	1 HSDAIFTDSY SRYRQLAVR RYLAALIGRR	=====	
HITS AT:	1-25	=====	**RELATED SEQUENCES AVAILABLE WITH SEQLINK**
LB	ANSWER 14 OF 30 REGISTRY COPYRIGHT 2007 ACS on STN	=====	
RN	735801-30-2 REGISTRY	=====	
CN	L-Argininamide, L-histidyl-L-seryl-L- α -aspartyl-L-alanyl-L-phenylalanyl-L-threonyl-L- α -glutamyl-L-asparaginyl-L-tyrosyl-L-threonyl-L-arginyl-L-leucyl-L-arginyl-L-leucyl-L-alanyl-L-leucyl-L-leucylglycyl-L-arginyL-(9CI) (CA INDEX NAME)	=====	
SOL	30 NTE modified	=====	
type	location	-----	description
terminal mod.	Arg-30	-	C-terminal amide
LC STN Files:	CA, CAPLUS	-	
NTE modified		-	
type	location	-----	description
terminal mod.	Arg-30	-	C-terminal amide
LC STN Files:	CA, CAPLUS	-	
NTE modified		-	

10/536880

type ----- location ----- description
terminal mod. His-1 N-acetyl
terminal mod. Arg-30 C-terminal amide
LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL
NTE modified
type ----- location ----- description
terminal mod. Arg-30 C-terminal amide
terminal mod. Arg-30 C-terminal amide

SEQ 1 HSDAVFTDNY TRLRQLAVR RYLAALIGR
HITS AT: 1-25

RELATED SEQUENCES AVAILABLE WITH SEQLINK
L8 ANSWER 25 OF 30 REGISTRY COPYRIGHT 2007 ACS on STN
RN 700368-37-1 REGISTRY
CN L-Argininamide, L-histidyl-L-seryl-L- α -aspartyl-L-alanyl-L-valyl-L-phenylalanyl-L-threonyl-L- α -asparaginyl-L-tyrosyl-L-threonyl-L-arginyl-L-leucyl-L-alanyl-L-leucyl-L-alanyl-L-leucyl-L-tyrosyl-L-tyrosyl-L-alanyl-L-alanyl-L-isoleucyl-L-leucylglycyl-L-lysyl- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 21: PN: WO2004048401 SEQID: 21 claimed protein
CN 33: PN: JP2004315436 SEQID: 17 claimed sequence
SQL 30
NTE modified
type ----- location ----- description
terminal mod. Arg-30 C-terminal amide
LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL
NTE modified
type ----- location ----- description
terminal mod. Arg-30 C-terminal amide

SEQ 1 HSDAVFTDNY TRLRQLAVR RYLAALIGR
HITS AT: 1-25

RELATED SEQUENCES AVAILABLE WITH SEQLINK
L8 ANSWER 26 OF 30 REGISTRY COPYRIGHT 2007 ACS on STN
RN 700368-96-3 REGISTRY
CN L-Argininamide, L-histidyl-L-seryl-L- α -aspartyl-L-alanyl-L-valyl-L-phenylalanyl-L-threonyl-L- α -asparaginyl-L-tyrosyl-L-threonyl-L-arginyl-L-leucyl-L-alanyl-L-leucyl-L-alanyl-L-leucyl-L-tyrosyl-L-tyrosyl-L-alanyl-L-alanyl-L-isoleucyl-L-leucylglycyl- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 20: PN: WO2004048401 SEQID: 20 claimed protein
CN 32: PN: JP2004315436 SEQID: 16 claimed sequence
SQL 29
NTE modified

SEQ 1 HSDAVFTDNY TRLRQLAVR RYLAALIGR
HITS AT: 1-25

RELATED SEQUENCES AVAILABLE WITH SEQLINK
L8 ANSWER 27 OF 30 REGISTRY COPYRIGHT 2007 ACS on STN
RN 700368-90-7 REGISTRY
CN L-Argininamide, L-histidyl-L-seryl-L- α -aspartyl-L-alanyl-L-valyl-L-phenylalanyl-L-threonyl-L- α -asparaginyl-L-tyrosyl-L-threonyl-L-arginyl-L-leucyl-L-alanyl-L-leucyl-L-alanyl-L-leucyl-L-tyrosyl-L-tyrosyl-L-alanyl-L-alanyl-L-isoleucyl-L-leucylglycyl-L-lysyl- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 21: PN: WO2004048401 SEQID: 21 claimed protein
CN 33: PN: JP2004315436 SEQID: 17 claimed sequence
SQL 30
NTE modified

SEQ 1 HSDAVFTDNY TRLRQLAVR RYLAALIGR
HITS AT: 1-25

RELATED SEQUENCES AVAILABLE WITH SEQLINK
L8 ANSWER 28 OF 30 REGISTRY COPYRIGHT 2007 ACS on STN
RN 700368-87-2 REGISTRY
CN L-Argininamide, L-histidyl-L-seryl-L- α -aspartyl-L-alanyl-L-valyl-L-phenylalanyl-L-threonyl-L- α -asparaginyl-L-tyrosyl-L-threonyl-L-arginyl-L-leucyl-L-arginyl-L-leucyl-L-alanyl-L-leucyl-L-alanyl-L-leucyl-L-tyrosyl-L-tyrosyl-L-alanyl-L-alanyl-L-isoleucyl-L-leucylglycyl- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 20: PN: WO2004048401 SEQID: 20 claimed protein
CN 32: PN: JP2004315436 SEQID: 16 claimed sequence
SQL 29
NTE modified

10/536880

type	location	description
terminal mod.	Arg-29	C-terminal amide
LC STN Files:	CA, CAPLUS, TOXCENTER, USPATFULL	
NTE modified		
type	location	description
terminal mod.	Arg-29	C-terminal amide
HITS AT:	1-25	
SEQ	1 HSDAVFTDNY TRURRQAVR RYLAATLG	
HITS AT:	1-25	

L8 ANSWER 29 OF 30 REGISTRY COPYRIGHT 2007 ACS on STN
RN 703168-85-0 REGISTRY
CN L-lysinamide, L-histidyl-L-seryl-L- α -aspartyl-L-alanyl-L-valyl-L-phenylalanyl-L-threonyl-L- α -aspartyl-L-asparagine-L-tyrosyl-L-threonyl-L-arginyl-L-leucyl-L-arginyl-L-glutaminyl-L-leucyl-L-alanyl-L-valyl-L-arginyl-L-tyrosyl-L-leucyl-L-alanyl-L-alanyl-L-isoleucyl-L-leucylglycyl- (9CI) (CA INDEX NAME)

OTHER NAMES:
CN 19: PN: WO2004048401 SEQID: 19 claimed protein
CN 31: PN: JP2004315436 SEQID: 15 claimed sequence
SQL 29
NTE modified

type	location	description
terminal mod.	Lys-29	C-terminal amide
LC STN Files:	CA, CAPLUS, TOXCENTER, USPATFULL	
NTE modified		
type	location	description
terminal mod.	Lys-29	C-terminal amide
HITS AT:	1-25	
SEQ	1 HSDAVFTDNY TRURRQAVR RYLAATLG	
HITS AT:	1-25	

L8 ANSWER 30 OF 30 REGISTRY COPYRIGHT 2007 ACS on STN
RN 703168-83-8 REGISTRY
CN Glycinamide, L-histidyl-L-seryl-L- α -aspartyl-L-alanyl-L-valyl-L-phenylalanyl-L-threonyl-L- α -aspartyl-L-asparagine-L-tyrosyl-L-threonyl-L-arginyl-L-leucyl-L-arginyl-L-glutaminyl-L-leucyl-L-alanyl-L-valyl-L-arginyl-L-tyrosyl-L-leucyl-L-alanyl-L-alanyl-L-isoleucyl-L-leucyl- (9CI) (CA INDEX NAME)

OTHER NAMES:
CN 18: PN: WO2004048401 SEQID: 18 claimed protein
CN 30: PN: JP2004315436 SEQID: 14 claimed sequence
SQL 28
NTE modified

type	location	description
------	----------	-------------

10/536880

10/536880

```
> file caplus
FILE 'CAPLUS' ENTERED AT 12:21:11 ON 30 JAN 2007
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FILE LAST UPDATED: 29 Jan 2007 (20070129/ED)

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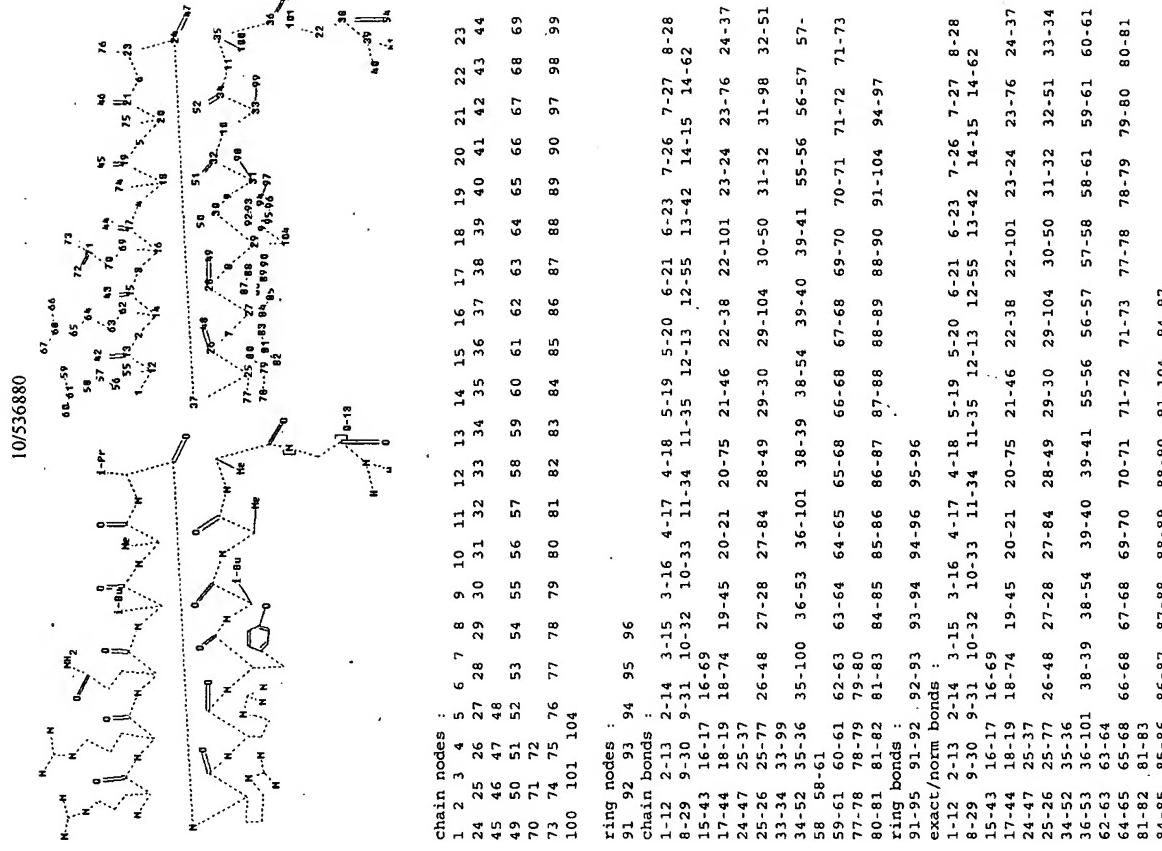
<http://www.cas.org/infopolicy.html>
OBI - IS DEFAULT SEARCH FIELD FOR 'CAPLUS' FILE

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> d stat que L24
L19      2952 SEA FILE=CAPLUS ABB=ON PLU=ON MATSUMOTO A?/AU
L20      4255 SEA FILE=CAPLUS ABB=ON PLU=ON ENDO K?/AU
L21      118 SEA FILE=CAPLUS ABB=ON PLU=ON ONUKE S?/AU
L22      13 SEA FILE=CAPLUS ABB=ON PLU=ON L19 AND (L20 OR L21)
L23      16 SEA FILE=CAPLUS ABB=ON PLU=ON L20 AND L21
L24      23 SEA FILE=CAPLUS ABB=ON PLU=ON (L22 OR L23)

=> d stat que L25
L3      113096 SEA FILE=REGISTRY ABB=ON PLU=ON AMITY/NOTE
L6      54 SEA FILE=REGISTRY ABB=ON PLU=ON HSDRA[IV] FT [DEA] [SND]Y [STR] R [YL]
      ]RQLAVRRYLLA/SQSP
L8      30 SEA FILE=REGISTRY ABB=ON PLU=ON L6 AND L3
L9      4 SEA FILE=CAPLUS ABB=ON PLU=ON L8
L10      STR

* STRUCTURE-DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *
```

Structure attributes must be viewed using STN Express query preparation:
Uploading L10.str



10/536880

exact bonds :
31-98 33-99 35-100
normalized bonds :
91-95 91-92 92-93 93-94 94-96 95-96

10/536880

=> file toxcenter
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Match level :
1:CLASS 2:CLASS 3:CLASS 4:CLASS 5:CLASS 6:CLASS 7:CLASS 8:CLASS 9:CLASS
10:CLASS 11:CLASS 12:CLASS 13:CLASS 14:CLASS 15:CLASS 16:CLASS 17:CLASS
18:CLASS 19:CLASS 20:CLASS 21:CLASS 22:CLASS 23:CLASS 24:CLASS 25:CLASS 26:CLASS 27:CLASS
28:CLASS 29:CLASS 30:CLASS 31:CLASS 32:CLASS 33:CLASS 34:CLASS 35:CLASS 36:CLASS 37:CLASS
38:CLASS 39:CLASS 40:CLASS 41:CLASS 42:CLASS 43:CLASS 44:CLASS 45:CLASS 46:CLASS 47:CLASS
48:CLASS 49:CLASS 50:CLASS 51:CLASS 52:CLASS 53:CLASS 54:CLASS 55:CLASS 56:CLASS 57:CLASS
58:CLASS 59:CLASS 60:CLASS 61:CLASS 62:CLASS 63:CLASS 64:CLASS 65:CLASS 66:CLASS 67:CLASS
68:CLASS 69:CLASS 70:CLASS 71:CLASS 72:CLASS 73:CLASS 74:CLASS 75:CLASS 76:CLASS 77:CLASS
78:CLASS 79:CLASS 80:CLASS 81:CLASS 82:CLASS 83:CLASS 84:CLASS 85:CLASS 86:CLASS 87:CLASS
88:CLASS 89:CLASS 90:CLASS 91:Atom 92:Atom 93:Atom 94:Atom 95:Atom 96:Atom 97:CLASS 98:CLASS
99:CLASS 100:CLASS 101:CLASS 104:CLASS

=> d stat que L29
FILE COVERS 1907 TO 23 Jan 2007 (20070123/ED)
This file contains CAS Registry Numbers for easy and accurate substance identification.
The MEDLINE file segment has been updated with 2007 MeSH terms, and
See HELP RLOAD for details.
TOXCENTER thesauri in the /CN, /CT, and /MN fields incorporate the
MeSH 2007 vocabulary.

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PROCESSING COMPLETED FOR L32
PROCESSING COMPLETED FOR L30
PROCESSING COMPLETED FOR L29
L33 32 DUP REM L32 L30 L29 (55 DUPLICATES REMOVED)
ANSWERS '1-25' FROM FILE CAPLUS
ANSWER '26' FROM FILE MEDLINE
ANSWERS '27-32' FROM FILE BIOSIS

=> d bib abs hitind hitstr L33 1-25; d iall L33 26-32

L15 11 SEA FILE=REGISTRY SSS FUL L10
L16 9 SEA FILE=CAPLUS ABB=ON PLU=ON L15
L19 2952 SEA FILE=CAPLUS ABB=ON PLU=ON MATSUMOTO A?/AU
L20 4255 SEA FILE=CAPLUS ABB=ON PLU=ON ENDO K?/AU
L21 118 SEA FILE=CAPLUS ABB=ON PLU=ON ONOUE S?/AU
L25 3 SEA FILE=CAPLUS ABB=ON PLU=ON L19 AND (L20 OR L21)
OR L9)

=> s L24-L25
L32 25 (L24 OR L25)

=> file medline biosis
FILE 'MEDLINE' ENTERED AT 12:21:41 ON 30 JAN 2007

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=> d stat que L30
L19 2952 SEA FILE=CAPLUS ABB=ON PLU=ON MATSUMOTO A?/AU
L20 4255 SEA FILE=CAPLUS ABB=ON PLU=ON ENDO K?/AU
L21 118 SEA FILE=CAPLUS ABB=ON PLU=ON ONOUE S?/AU
L22 13 SEA FILE=CAPLUS ABB=ON PLU=ON L19 AND (L20 OR L21)
L23 16 SEA FILE=CAPLUS ABB=ON PLU=ON L20 AND L21
L24 23 SEA FILE=CAPLUS ABB=ON PLU=ON L19 AND (L22 OR L23)
L30 42 SEA L24

L33 ANSWER 1 OF 32 CAPLUS COPYRIGHT 2007 ACS on STN DUPLICATE 1
ACCESSION NUMBER: 2006:485110 CAPLUS Full-ext
DOCUMENT NUMBER: 14:109921
TITLE: Development of dry powder inhalation system of novel
vasoactive intestinal peptide (VIP) analogue for
pulmonary administration
AUTHOR(S): Ohmori, Yuki; Onoue, Satomi; Endo,

10/536880

Kouuke; Matsumoto, Asami; Uchida, Shinji; Yamada, Shizuo;
Department of Pharmacokinetics and Pharmacodynamics and COE Program in the 21st Century, School of Pharmaceutical Sciences, Shizuoka, University of Shizuoka, Suruga-ku, Shizuoka, 422-8526, Japan
Life Sciences (2006), 79(2), 138-143
CODEN: LIFSAK; ISSN: 0024-3205
Elsevier B.V.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Vasoactive intestinal peptide (VIP) exerts a relaxing action on tracheal smooth muscle which is mediated through interaction with VIP receptors. The deficiency of VIP in the airways has been implicated in the pathogenesis of asthma. Thus, the administration of VIP may be useful for the therapy of pulmonary diseases. However, the therapeutic application of VIP is largely limited by its rapid degradation in addition to the systemic adverse effects due to the wide distribution of VIP receptors. To overcome these problems, we succeeded to synthesize a novel VIP derivative of VIP, (IK15, 20, 21, L17)-VIP-GR (IK31252), and to prepare its dry powder for the topical administration to the lung. The physicochemical properties of dry powder were evaluated by laser diffraction and cascade impactor. The laser diffraction anal. indicated that the carrier and fine particles had median diameter of 65.6 and 4.5 μm , resp., and the air flow at the pressure of 0.15 W/m² or higher resulted in the high dispersion and significant separation of fine particle containing peptide from the carrier mol. The cascade impactor anal. clearly showed the high emission of dry powder from capsule and the deposition of peptide on stages 3 of the cascade impactor. The intratracheal administration of dry powder inhaler (DPI) of VIP or IK31252 brought about a significant decrease of maximal number of binding sites (Bmax) for [125]VIP in anterior and posterior lobes of rat right lung, suggesting a significant occupancy of lung VIP receptors. This effect by IK31252-DPI compared with VIP-DPI lasted for a longer period. Thus, IK31252-DPI may be a pharmacol. useful drug delivery system for the VIP therapy of pulmonary diseases such as asthma.

CC 63-5 (Pharmaceuticals)

REFERENCE COUNT: 36 THERE ARE 36 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALI CITATIONS AVAILABLE IN THE RE FORMAT

L33 ANSWER 2 OF 32 CAPLUS COPYRIGHT 2007 ACS ON STN DUPLICATE 2 2005:48083 CAPLUS Full-text

DOCUMENT NUMBER: 143-83291 **ACCESSION NUMBER:** A1 **TITLE:** Erythritol-based dry powder of glucagon for pulmonary administration

AUTHOR (S): Endo, Kouuke; Amikawa, Satoko; Matsumoto, Asami; Sahashi, Norio; Onoue, Satomi

CORPORATE SOURCE: Pharmaceutical Division, Ito Life Sciences Inc.,

SOURCE: Moriya, Ibaraki, 302-0104, Japan International Journal of Pharmaceutics (2005), 290(1-2), 63-71

CODEN: IJPHDE; **ISSN:** 0378-5173

PUBLISHER: Elsevier B.V.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Glucagon, a key regulatory element of glycogen metabolism, is known to be effective in the clin. treatment of hypoglycemia and the maintenance of normal circulating glucose levels in patients with total pancreatectomy, however the clin. use of this gut hormone has been restricted to parenteral administration. In this investigation, we prepared dry powder dosage forms of glucagon, which were formulated by mixing micronized glucagon particles and

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excipients with larger carrier particles. To achieve alveolar deposition for subsequent systemic absorption, a dry powder inhalant (DPI) of glucagon was size-reduced to a mass median diameter between 1 and 6 μm , as measured by laser diffraction anal. The use of erythritol as both excipient and carrier in DPI of glucagon resulted in high and reproducible bioavailability and dispersibility of the powder mixts., and therefore it provided a low dosing of the active substances. Distinct transpulmonary absorption of glucagon was confirmed after intratracheal administration of the glucagon dry powder to anesthetized rats, as evidenced by the increase in the blood glucagon and blood sugar levels. These results suggested the usefulness of an erythritol-based powder form of glucagon for systemic administration.

CC 63-5 (Pharmaceuticals) **SECTION CROSS-REFERENCE (S):** 2

REFERENCE COUNT: 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L33 ANSWER 3 OF 32 CAPLUS COPYRIGHT 2007 ACS ON STN DUPLICATE 3 2004:467910 CAPLUS Full-text

DOCUMENT NUMBER: 141-33832 **TITLE:** Peptides and medicinal compositions containing the same

AUTHOR (S): Onoue, Satomi; Endo, Kouuke; Matsumoto, Asami

CORPORATE SOURCE: Itohama Foods Inc., Japan

PCT INT. APP'L: 73 pp.

CODEN: PIXKD2 **PATENT:** Japanese

DOCUMENT TYPE: FAMILY ACC. NUM. COUNT: 1

LANGUAGE: FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO. **KIND** **DATE** **APPLICATION NO.** **DATE**

WO 20040610 A1 20040610 WO 2003-JP14924 20031121

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CZ, DE, DK, DM, DZ, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, IC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MN, MW, MY, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SI, SY, TJ, TM, TN, TR, TT, TZ, UA, US, UZ, VC, VN, YU, ZA, ZM, ZW

RN: BM, GH, GM, KE, LS, MN, MZ, SD, SL, SZ, TZ, UG, ZM, ZR, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, BE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BP, BJ, CF, CG, CL, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

CA 2507616 A1 20040610 CA 2003-2507616 20031121

AU 2003284428 A1 20040618 AU 2003-284428 20031121

EP 157155 A1 20050907 EP 2003-775559 20031121

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NU, SE, MC, PT,

IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, BE, HE, HK, SK

CN 1732182 A 20060208 CN 2003-80107764 20031121

US 2006276384 A1 20061207 US 2005-536880 20050527

PRIORITY APPLN. INFO.: JP 2002-344523 A 20021127

WO 2003-JP14924 W 20031121

AB Dislosed is a medicinal composition containing, as the active ingredient, a peptide derived from a PACAP peptide or a VIP derivative or a pharmaceutically acceptable salt thereof. Thus, a PACAP/VIP derivative the tautomerization of which in the state of a solution is inhibited and thus which can be clin. employed over a long period of time is provided. These peptides are efficacious in ameliorating symptoms of diseases such as depressive neurodegenerative diseases, erectile dysfunction and bronchial asthma. A

10/536880

Peptide His-Ser-Asp-Ala-Val-Phe-Thr-Asp-Asn-Tyr-Thr-Arg-Leu-Arg-Arg-Gln-Leu-Ala-Val-Arg-Arg-Tyr-Leu-Asn-Ser-Ile-Leu-Asn-Gly-Arg-Arg-NH₂ (I) was prepared, and its stability in water with various pH was tested. An inhalant powder containing I with erythritol carrier was formulated.

IC C07K014-00

A61P011-08; A61P011-12; A61P015-10; A61P017-14; A61P025-00;

A61P025-28; A61P027-02

CC 1-12 (Pharmacology)

Section cross-reference(s): 63

IT 134582-08-4P, Vasodilator octacosapeptide (swine) 127387-03-7P

475083-13-7P 700368-76-9P 700368-79-2P 700368-81-6P

700368-83-8P 700368-95-0P 700368-97-2P

700368-90-7P 700368-92-9P 700368-94-1P 700368-96-3P

700368-98-5P 700369-00-2P 700369-02-4P 702686-30-4P

702686-33-7P 702686-36-0P 702686-37-1P 702686-38-2P

702686-42-8P 702686-49-5P 702686-52-0P 702686-53-1P

702686-55-3P 702686-56-4P 702686-57-5P

702686-58-6P 702686-59-7P 735327-72-7P

RL: PAC (Pharmacological activity); PRP (Properties); SPN (Synthetic preparation); THO (Therapeutic use); BIOL (Biological study); PREP (Preparation); USGS (Uses)

(Peptides containing PACAP/VIP derivs. and medicinal compns.)

IT 700368-83-8P 700368-95-0P 700368-97-2P

700368-90-7P 700368-96-3P 702686-37-1P

702686-53-5P 702686-55-3P 702686-55-3P

702686-56-4P 702686-57-5P 702686-58-6P

702686-59-7P 735327-72-7P

RL: PAC (Pharmacological activity); PRP (Properties); SPN (Synthetic preparation); THO (Therapeutic use); BIOL (Biological study); PREP (Preparation); USGS (Uses)

(Peptides containing PACAP/VIP derivs. and medicinal compns.)

RN 700368-83-8 CAPLOS

CN Glycinamide, L-histidyl-L-seryl-L- α -aspartyl-L-alanyl-L-valyl-L-phenylalanyl-L-threonyl-L- α -aspartyl-L-asparaginyl-L-tyrosyl-L-alanyl-L-valinyl-L-leucinyl-L-leucyl-L-arginyl-L-leucyl-L-tyrosyl-L-arginyl-L-leucyl-L-alanyl-L-alanyl-L-isoleucyl-L-leucyl- (9CI) (CA INDEX NAME)

10/536880

Peptide His-Ser-Asp-Ala-Val-Phe-Thr-Asp-Asn-Tyr-Thr-Arg-Leu-Arg-Arg-Gln-Leu-Ala-Val-Arg-Arg-Tyr-Leu-Asn-Ser-Ile-Leu-Asn-Gly-Arg-Arg-NH₂ (I) was prepared, and its stability in water with various pH was tested. An inhalant powder containing I with erythritol carrier was formulated.

IC C07K014-00

A61P011-08; A61P011-12; A61P015-10; A61P017-14; A61P025-00;

A61P025-28; A61P027-02

CC 1-12 (Pharmacology)

Section cross-reference(s): 63

IT 134582-08-4P, Vasodilator octacosapeptide (swine) 127387-03-7P

475083-13-7P 700368-76-9P 700368-79-2P 700368-81-6P

700368-83-8P 700368-95-0P 700368-97-2P

700368-90-7P 700368-92-9P 700368-94-1P 700368-96-3P

700368-98-5P 700369-00-2P 700369-02-4P 702686-30-4P

702686-33-7P 702686-36-0P 702686-37-1P 702686-38-2P

702686-42-8P 702686-49-5P 702686-52-0P 702686-53-1P

702686-55-3P 702686-56-4P 702686-57-5P

702686-58-6P 702686-59-7P 735327-72-7P

RL: PAC (Pharmacological activity); PRP (Properties); SPN (Synthetic preparation); THO (Therapeutic use); BIOL (Biological study); PREP (Preparation); USGS (Uses)

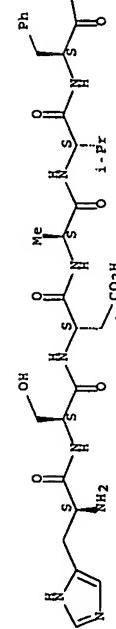
(Peptides containing PACAP/VIP derivs. and medicinal compns.)

RN 700368-83-8 CAPLOS

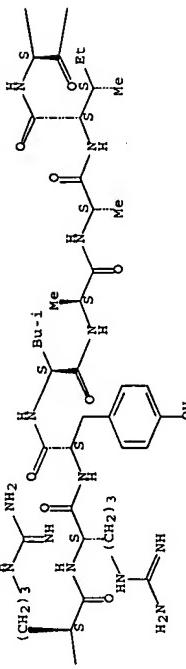
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Absolute stereochemistry.

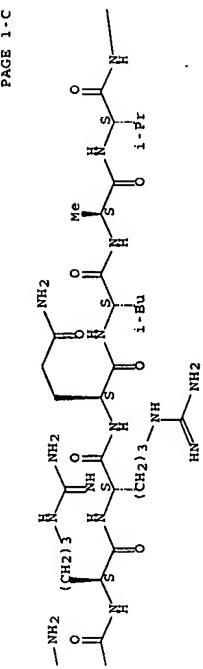
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PAGE 1-B

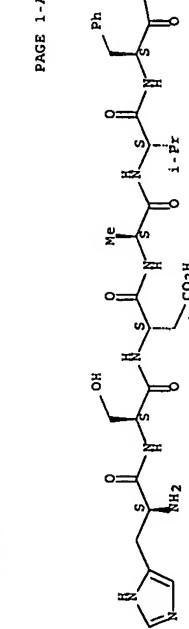


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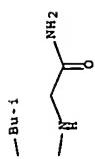
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PAGE 1-D



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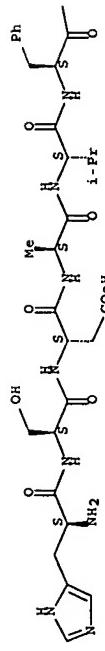
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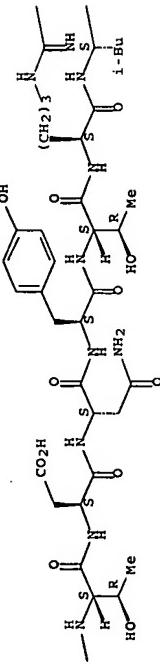
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Absolute stereochemistry.

PAGE 1-A

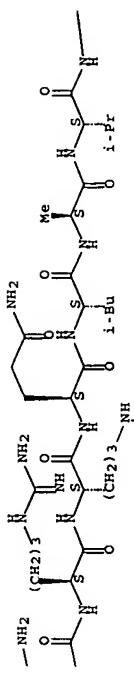


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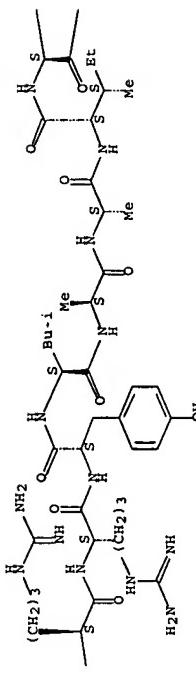
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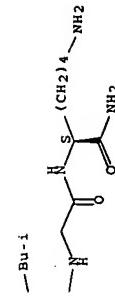
RN 700368-85-0 CAPLUS

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PAGE 1-D



PAGE 1-E

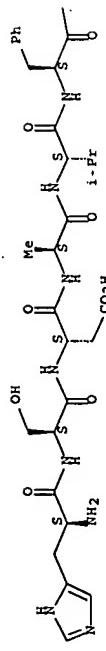


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Absolute stereochemistry.

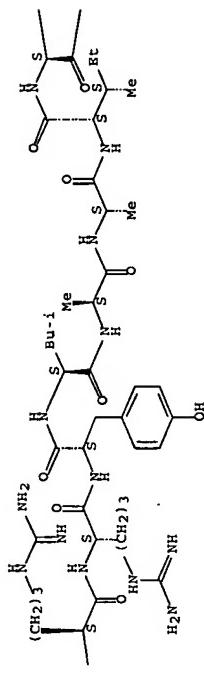
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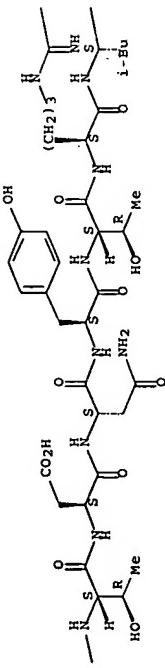


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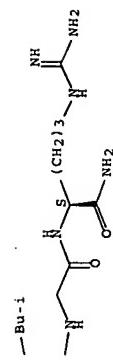
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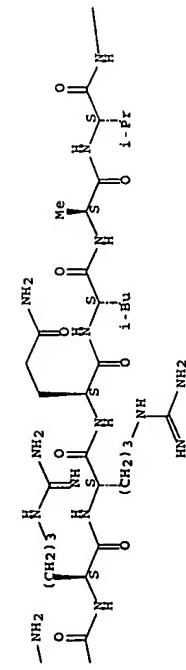
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PAGE 1-E



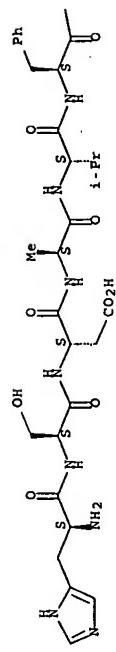
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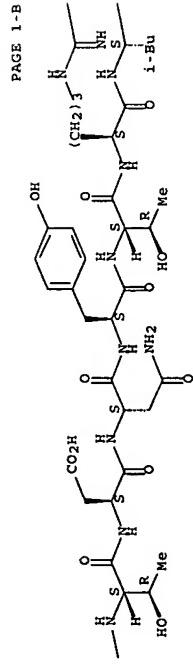
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Absolute stereochemistry.

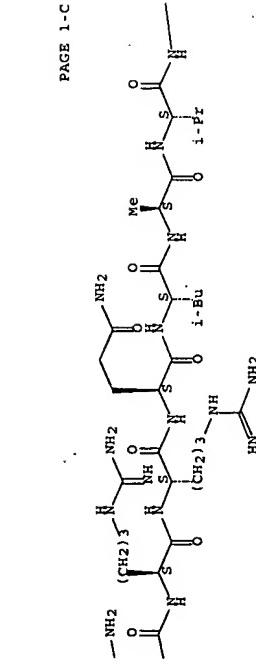
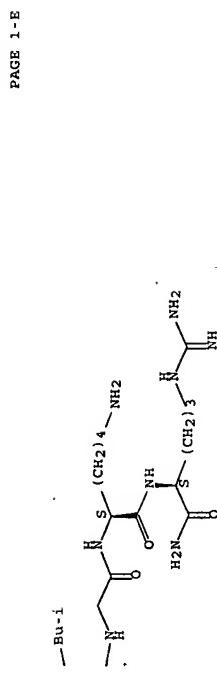
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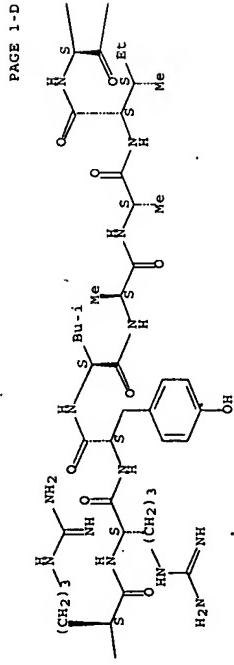
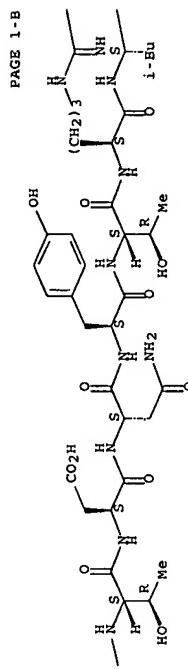
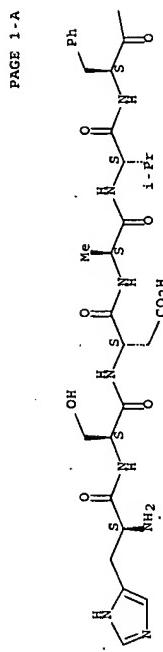


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RN 700368-96-3 CAPLUS
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Absolute stereochemistry.



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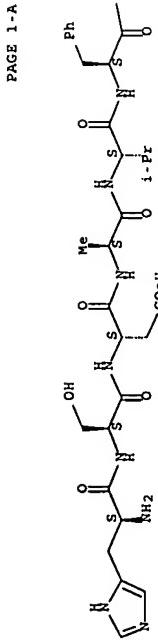
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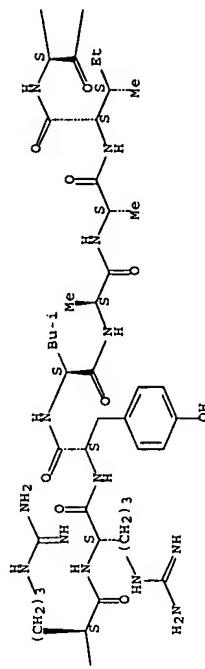
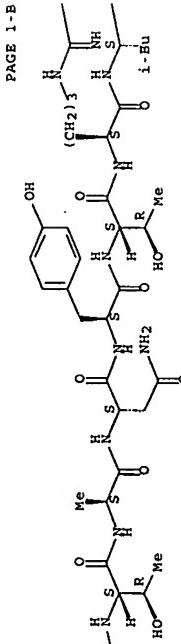
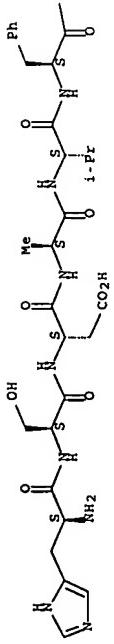
RN 73327-72-7 CAPLUS

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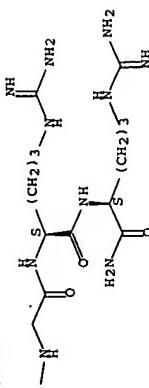
Absolute stereochemistry.



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REFERENCE COUNT:

18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L33 ANSWER 4 OF 32 CAPLUS COPYRIGHT 2007 ACS on STN DUPLICATE 4

ACCESSION NUMBER: 2004:371854 CAPLUS Full-text

DOCUMENT NUMBER: 140:418294 Vasoactive intestinal peptide and pituitary adenylate

TITLE: cyclase-activating polypeptide attenuate the cigarette smoke extract-induced apoptotic death of rat alveolar L2 cells

ONOU, Sacomi; Ohmori, Yuki; Endo, Kosuke; Yamada, Shizuo; Kimura, Ryoei; Yajima, Takehiko

CORPORATE SOURCE: Health Science Division, Itoham Foods Inc., Ibaraki,

Japan

SOURCE: European Journal of Biochemistry (2004), 271(9), 1757-1767

CODEN: EUBCAI; ISSN: 0014-2956

Blackwell Publishing Ltd.

10/536880

DOCUMENT TYPE:

Journal

English

Chronic obstructive pulmonary disease is a major clin. disorder usually associated with cigarette smoking. A central feature of chronic obstructive pulmonary disease is inflammation coexisting with an abnormal protease/antiprotease balance, leading to apoptosis and elastolysis. In an *in vitro* study of rat lung alveolar L2 cells, cigarette smoke extract (CSE) induced apoptotic cell death. Exposure of L2 cells to VIP at a concentration of 0.25% resulted in a 50% increase of caspase-3 and matrix metalloproteinase (MMP) activities. Specific inhibitors for caspases and MMPs attenuated the cytotoxicity of CSE. RT-PCR amplification identified VPAC2 receptors in L2 cells. A radioligand-binding assay with ¹²⁵I-labeled vasoactive intestinal peptide (VIP) found high affinity and saturable ¹²⁵I-labeled VIP-binding sites in L2 cells. VIP and pituitary adenylate cyclase-activating polypeptide (PACAP27) were approx. equipotent for both VIP receptor binding and stimulation of cAMP production in L2 cells. Both neuropeptides, at concns. higher than 10-13 M, produced a concentration-dependent inhibition of CSE-induced cell death in L2 cells. VIP, at 10-7 M, reduced CSE-stimulated MMP activity and caspase-3 activation. The present study has shown that VIP and PACAP27 significantly attenuate the cytotoxicity of CSE through the activation of VPAC2 receptor, and the protective effect of VIP may partly be the result of a reduction in the CSE-induced stimulation of MMPs and caspases.

CC 2-6 (Mammalian Hormones)

Section cross-reference(s): 4

REFERENCE COUNT: 50 THERE ARE 50 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L33 ANSWER 5 OF 12 CAPLUS COPYRIGHT 2007 ACS ON STN DUPLICATE 5

ACCESSION NUMBER: 2004:35149 CAPLUS Full-text

DOCUMENT NUMBER: 140-297670

Structure-activity relationship of synthetic truncated analogues of vasoactive intestinal peptide (VIP): an enhancement in the activity by a substitution with arginine

Onone, Satomi; Ohmori, Yuki; Matsumoto, Kazuhiko; Yamada, Shizuo; Kimura, Ryoei; Yajima, Takaniko; Asami, Onoue, Satomi; Matsumoto, Kazuhiko; Ohmori, Yuki; Nagano, Yumiko; Oshima, Keiichi; Ohmori, Yuki; Yamada, Shizuo; Kimura, Ryoei; Yajima, Takaniko; Ibaraki, 302-0104, Japan

CORPORATE SOURCE: European Journal of Pharmacology (2004), 485(1-3), 307-316

SOURCE: CODEN: EUPHAZ; ISSN: 0014-2999

PUBLISHER: Elsevier Science B.V.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The conformational properties of vasoactive intestinal peptide (VIP) include the N-terminal randomized structure and the C-terminal long α -helical structure. The authors have previously observed that the N-terminal random coil structure plays a crucial role in the receptor-selectivity. Here, to clarify how the formation of the α -helix plays a role in its biol. functions, the authors chemical synthesized VIP analogs modified at the C-terminus, mid-chain, and N-terminus of the α -helical region, and evaluated the relationship between their α -helical contents and their biol. activities including relaxant effects on murine stomach and receptor-binding activities. VIP and VIP-(1-27) showed equipotent biol. activities with 43% and 50% α -helical content, resp., each of which corresponds to 14 amino acid residues. VIP-(1-26) was 10% and threefold less potent in relaxant and binding activities, resp., compared with VIP, and its 49% α -helical content resulted in 13 residues involved in the α -helix. Further truncation from 25 to 21 resulted in decrease in the α -helical content from 43% to 29%, corresponding residues from 11 to 6, the relaxant activity from 72% to 4%, and the affinity to the membrane from 50-fold to over 104-fold less potency. In addition, disruption of the mid-chain and the N-terminus in the α -helical stretch by oxidation of Met17 and deletion of Thr11 also inhibited biol. activities. These findings suggest that the presence of α -helical structure forming in 14 amino acid residues between position 10 and 23 in VIP is essential to its biol. functions and the C-terminal amino acid residues between position 24 and 27 are requisite for this α -helical formation.

CC 2-2 (Mammalian Hormones)

REFERENCE COUNT: 53 THERE ARE 53 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L33 ANSWER 7 OF 32 CAPLUS COPYRIGHT 2007 ACS ON STN DUPLICATE 7

ACCESSION NUMBER: 2004:917676 CAPLUS Full-text

DOCUMENT NUMBER: 141:385080

Pharmacological effects and lung-binding characteristics of a novel VIP analogue, [Arg15, 20, 21, 22]-VIP(1-23). In conclusion, it was shown that [Arg15, 20, 21, 22]-VIP(1-23) did

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Leu17]-VIP(1-23) could be a relatively potent and stable agonist of VIP receptors. The present study has provided further insight into the structure-activity relationship of VIP to generate novel shortened VIP analogs having a high affinity to VIP receptors and potent pharmacol. activity.

CC 2-2 (Mammalian Hormones)

REFERENCE COUNT: 41 THERE ARE 41 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L33 ANSWER 6 OF 32 CAPLUS COPYRIGHT 2007 ACS ON STN DUPLICATE 6

ACCESSION NUMBER: 2004:78836 CAPLUS Full-text

DOCUMENT NUMBER: 140:264668

TITLE: α -Helical structure in the C-terminus of vasoactive intestinal peptide: functional and structural consequences

AUTHOR(S): Onoue, Satomi; Matsumoto, Kazuhiko; Yamada, Shizuo; Kimura, Ryoei; Yajima, Takaniko; Ibaraki, 302-0104, Japan

CORPORATE SOURCE: European Journal of Pharmacology (2004), 485(1-3), 307-316

SOURCE: CODEN: EUPHAZ; ISSN: 0014-2999

PUBLISHER: Elsevier Science B.V.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The conformational properties of vasoactive intestinal peptide (VIP) include the N-terminal randomized structure and the C-terminal long α -helical structure. The authors have previously observed that the N-terminal random coil structure plays a crucial role in the receptor-selectivity. Here, to clarify how the formation of the α -helix plays a role in its biol. functions, the authors chemical synthesized VIP analogs modified at the C-terminus, mid-chain, and N-terminus of the α -helical region, and evaluated the relationship between their α -helical contents and their biol. activities including relaxant effects on murine stomach and receptor-binding activities. VIP and VIP-(1-27) showed equipotent biol. activities with 43% and 50% α -helical content, resp., each of which corresponds to 14 amino acid residues. VIP-(1-26) was 10% and threefold less potent in relaxant and binding activities, resp., compared with VIP, and its 49% α -helical content resulted in 13 residues involved in the α -helix. Further truncation from 25 to 21 resulted in decrease in the α -helical content from 43% to 29%, corresponding residues from 11 to 6, the relaxant activity from 72% to 4%, and the affinity to the membrane from 50-fold to over 104-fold less potency. In addition, disruption of the mid-chain and the N-terminus in the α -helical stretch by oxidation of Met17 and deletion of Thr11 also inhibited biol. activities. These findings suggest that the presence of α -helical structure forming in 14 amino acid residues between position 10 and 23 in VIP is essential to its biol. functions and the C-terminal amino acid residues between position 24 and 27 are requisite for this α -helical formation.

CC 2-2 (Mammalian Hormones)

REFERENCE COUNT: 53 THERE ARE 53 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L33 ANSWER 7 OF 32 CAPLUS COPYRIGHT 2007 ACS ON STN DUPLICATE 7

ACCESSION NUMBER: 2004:917676 CAPLUS Full-text

DOCUMENT NUMBER: 141:385080

Pharmacological effects and lung-binding characteristics of a novel VIP analogue, [Arg15, 20, 21, 22]-VIP(1-23). In conclusion, it was shown that [Arg15, 20, 21,

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- AUTHOR(S) :** Ohmoi, Yuki; Matsumoto, Shuji; Kimura, Ryohei; Onoue, Satomi; Matsumoto, Asami; Endo, Kosuke; Iwanaga, Toshihiko; Kashimoto, Kazuhisa; Yamada, Shizuo
- CORPORATE SOURCE:** School of Pharmaceutical Sciences and COE Program in the 21st Century, University of Shizuoka, Shizuoka, 422-8526, Japan
- SOURCE:** Regulatory Peptides (2004), 123(1-3), 201-207
- CODEN:** REPPD; **ISSN:** 0167-0115
- PUBLISHER:** Elsevier B.V.
- DOCUMENT TYPE:** Journal
- LANGUAGE:** English
- AB** A novel VIP derivative, [R15, 20, 21, L17]-VIP-GRR (IK 312532), relaxed potently the carbachol-induced contraction of guinea pig isolated trachea with longer duration than that induced by VIP. IK 312532 competed with [L125]VIP for the binding sites in the rat lung in a concentration-dependent manner. There was considerable decrease in specific [L56]VIP binding in each lobe of right and left lung 0.5 h after the intratracheal administration of IK 312532 (50 µg/rat) dry powder inhaler (DPI). Rosenthal anal. revealed that the administration of IK 312532 (50 and 100 µg/rat)-DPI brought about a significant decrease of maximal number of binding sites (B_{max}) for specific [L125]VIP binding in anterior and posterior lobes of rat right lung, suggesting a significant occupancy of lung VIP receptors. This effect by IK 312532 in the posterior lobe of the right lung was dose-dependent and lasted until at least 2 h after the intratracheal administration. Furthermore, the antigen-evoked infiltration of granulocytes in the rat bronchiolar mucosa was markedly suppressed by the intratracheal administration of IK 312532 (50 µg/rat)-DPI. In conclusion, the present study has shown that IK 312532 exhibits long-lasting relaxation of tracheal smooth muscles and that the intratracheal administration of this peptide exerts a significant occupancy of lung VIP receptors as well as a suppression of the antigen-evoked infiltration of granulocytes in the bronchiolar mucosa. Thus, the formulation of IK 312532 as DPI may be a pharmacological useful drug delivery system for the therapy of pulmonary diseases such as asthma.
- CC** 2-6 (Mammalian Hormones)
- REFERENCE COUNT:** 34
- THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT
- L33 ANSWER 8 OF 32 CAPLUS COPYRIGHT 2007 ACS on STN DUPLICATE 8**
- ACCESSION NUMBER:** 2004-9117675 CAPLUS Full-text
- DOCUMENT NUMBER:** 141-389079
- TITLE:** Long acting analogue of vasoactive intestinal peptide, [R15, 20, 21, L17]-VIP-GRR (IK312532), protects rat alveolar L2 cells from the cytotoxicity of cigarette smoke
- AUTHOR(S) :** Onoue, Satomi; Endo, Kosuke; Ohmoi, Yuki; Yamada, Shizuo; Kimura, Ryohei; Yajima, Takehiko; Kashimoto, Kazuhisa
- CORPORATE SOURCE:** Health Science Division, Itoham Foods Inc., Moriya, Ibaraki, 302-0104, Japan
- SOURCE:** Regulatory Peptides (2004), 123(1-3), 193-199
- PUBLISHER:** Elsevier B.V.
- DOCUMENT TYPE:** Journal
- LANGUAGE:** English
- AB** Vasoactive intestinal peptide (VIP) and pituitary adenylate cyclase-activating polypeptide (PACAP) act as neurotransmitters in numerous biological responses. We

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- previously reported that the replacement of Lys by Arg, and Met by Leu in VIP (IK 312532; [Arg15, 20, 21, Leu17]-VIP) resulted in a significant improvement in metabolic stability and biologic activity. In the present study, we investigated the effect of VIP and its related peptides including long-acting VIP derivative (IK 312532) and PACAP27 on the cytotoxicity of cigarette smoke extract (CSE), a causative factor of chronic obstructive pulmonary disease (COPD), in rat alveolar L2 cells. RT-PCR displayed the dominant expression of mRNA for the VIP-specific VPAC2 receptor in L2 cells, and VIP and the related peptides showed the specific binding activity and potent stimulation of adenylyl cyclase. CSP at a concentration of 0.1 μ M or higher induced significant apoptotic death of L2 cells. Interestingly, the addition of neuropeptides at a concentration of 10-11 M or higher in L2 cells with CSE (0.25%) resulted in significant attenuation of cell death with the deactivation of CSE-evoked caspase-3 activity. IK 312532 was much more stable against the enzymic digestion compared to VIP, and the protective effect of IK 312532 was 1.6-fold higher than that of VIP. Taken together with our previous report showing that IK 312532 has long-acting relaxant activity in the lung, IK 312532 may be a potential candidate for drug treatment of asthma and COPD.
- CC** 2-6 (Mammalian Hormones)
- Section cross-reference(s) :** 4
- REFERENCE COUNT:** 30
- THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT
- L33 ANSWER 9 OF 32 CAPLUS COPYRIGHT 2007 ACS on STN DUPLICATE 9**
- ACCESSION NUMBER:** 2003-449565 CAPLUS Full-text
- DOCUMENT NUMBER:** 139-205254
- TITLE:** Misfolding of therapeutic peptides and the cytotoxicity of peptide fibrils
- AUTHOR(S) :** Onoue, Satomi; Oshihama, Keiichi; Endo, Kosuke; Yajima, Takehiko; Kashimoto, Kazuhisa
- CORPORATE SOURCE:** Health Science Division, Itoham Food Inc., Moriya, Ibaraki, 302-0104, Japan
- SOURCE:** Peptide Science (2003), Volume Date 2002, 39th, 393-396
- CODEN:** PSCIFQ; **ISSN:** 1344-7661
- PUBLISHER:** Japanese Peptide Society
- DOCUMENT TYPE:** Journal
- LANGUAGE:** English
- AB** Misfolding of peptides/proteins including β -amyloid, prion protein, and amylin generates the amyloidogenic isoforms with the abundant of β -sheet structure, and these fibrils are causative agents for some neurodegenerative disorders. In addition to these toxic agents, some therapeutic peptides also displayed the conformational changes into β -sheet rich fibrils in a time-dependent manner. Here, we demonstrated that incubation of human glucagon and salmon calcitonin at the concentration of 5.0 mg/mL or higher resulted in a significant increase of fibril generation, and these fibrils are toxic to neuron-like PC12 cells and fibroblast NIH-3T3 cells via activation of an apoptotic enzyme caspase-3.
- CC** 6-3 (General Biochemistry)
- Section cross-reference(s) :** 1
- REFERENCE COUNT:** 9
- THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT
- L33 ANSWER 10 OF 32 CAPLUS COPYRIGHT 2007 ACS on STN DUPLICATE 10**
- ACCESSION NUMBER:** 2003-449537 CAPLUS Full-text
- DOCUMENT NUMBER:** 139-240629
- TITLE:** Development of a new vasoactive intestinal peptide analogue and its topical administration system, dry powder inhalation

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- AUTHOR (S) : Endo, Kosuke; Onoue, Satomi; Amikawa, Satoko; Matsumoto, Asami; Ohmori, Yuko; Yamada, Shizuo; Kimura, Ryohji; Kashimoto, Kazuhisa
CORPORATE SOURCE: Health Science Division, Itoham Foods Inc., Moriya, Ibaraki, 302-0104, Japan
SOURCE: Peptide Science (2003), Volume Date 2002, 39th, 301-304
CODEN: PSCIFQ; ISSN: 1344-7661
PUBLISHER: Japanese Peptide Society
DOCUMENT TYPE: English
LANGUAGE: AB Vasoactive intestinal peptide (VIP) has been considered as a candidate of novel drugs to treat asthma, since it was confirmed that VIP neuron was involved in the regulation of bronchodilation in human lung. Although it is well-established that VIP is effective in several types of bronchoconstriction in vivo and *in vitro*, there are serious problems including the stability of VIP against enzymatic digestion, its dosage form, and the undesired side effect due to the wide-distribution of VIP preferring receptors. Here, we have synthesized the stabilized VIP analog, and topical administration method has been developed for the respiratory systems such as trachea, bronchus and lung.
CC 2-6 (Mammalian Hormones) REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT
- L33 ANSWER 11 OF 32 CAPLUS COPYRIGHT 2007 ACS on STN DUPLICATE 12
ACCESSION NUMBER: 2002-636020 CAPLUS Full-text
DOCUMENT NUMBER: 138-19718
TITLE: The neuropeptide PACAP attenuates β -amyloid (1-42)-induced toxicity in PC12 cells
- AUTHOR (S) : Onoue, Satomi; Endo, Kosuke; Ohsima, Keiichi; Yajima, Takehiko; Kashimoto, Kazuhisa
CORPORATE SOURCE: Health Science Division, Central Research Institute Itoham Foods Inc., 1-2-1 Kubogaoka, Moriya, Ibaraki, 302-0104, Japan
SOURCE: Peptides (New York, NY, United States) (2002), 23 (8), 1471-1478
CODEN: PPTDPS; ISSN: 0196-9781
PUBLISHER: Elsevier Science Inc.
DOCUMENT TYPE: English
AB Pituitary adenylylate cyclase activating polypeptide (PACAP) modulates neurotransmission in the central and peripheral nervous systems. *In vitro* and *in vivo* studies have shown the protective effects of PACAP against neuronal damage induced by ischemia and agonists of NMDA-type glutamate receptors. Here, we demonstrated that PACAP also protected against neuronal toxicity induced by β -amyloid ($\text{A}\beta$) peptide, aggregation of which is a causative factor for Alzheimer's disease. PACAP (10^{-9} M) rescued 80% of decreased cell viability and 50% of elevated caspase-3 activity that resulted from exposure of PC12 cells to $\text{A}\beta$. PACAP was at least 104-fold more effective than other neuropeptides including vasoactive intestinal peptide (VIP) and humanin, which correlated with the level of cAMP accumulation. Thus, our results suggested that PACAP attenuates $\text{A}\beta$ -induced cell death in PC12 cells through an increase in cAMP and that caspase-3 deactivation by PACAP is involved in the signaling pathway for this neuroprotection.
CC 2-5 (Mammalian Hormones) REFERENCE COUNT: 46 THERE ARE 46 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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- L33 ANSWER 12 OF 32 CAPLUS COPYRIGHT 2007 ACS on STN DUPLICATE 13
ACCESSION NUMBER: 2004-28522 CAPLUS Full-text
DOCUMENT NUMBER: 141-33987
TITLE: Pituitary adenylylate cyclase-activating polypeptide inhibited the β -amyloid-induced neurotoxicity and activation of caspase-3
AUTHOR (S) : Endo, Kosuke; Onoue, Satomi; Ohsima, Keiichi; Yajima, Takehiko; Kashimoto, Kazuhisa
CORPORATE SOURCE: Itoham Foods Inc., Moriya, Ibaraki, 302-0104, Japan
Peptides 2002, Proceedings of the European Peptide Symposium, 27th, Sorrento, Italy, Aug 31-Sept. 6, 2002 (2002), 472-473. Editor(s): Bendetti, Ettore; Pedone, Carlo. Edizioni Zinno: Castellammare di Stabia, Italy.
CODEN: 69YXG; ISBN: 88-900948-1-8
CONFERENCE: English
AB Pituitary adenylylate cyclase activating polypeptide (PACAP) and vasoactive intestinal peptide (VIP) are closely related neuropeptides in terms of sequence, solution structure and physiol. functions. The effect of PACAP/VIP on β -amyloid ($\text{A}\beta$)-induced neurotoxicity in rat pheochromocytoma cells (PC12 cells) *in vitro* was evaluated. PACAP27 (10^{-15} - 10^{-9} M) and VIP (10^{-9} - 10^{-7} M) showed significant neuroprotective effects against the $\text{A}\beta$ -induced neuronal damage. The results indicated that PACAP27- $\text{A}\beta$ -induced neuroprotection against $\text{A}\beta$ -induced cell death is mediated via the cAMP-dependent signalling pathway and also caspase-3 deactivation.
CC 2-5 (Mammalian Hormones) REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT
- L33 ANSWER 13 OF 32 CAPLUS COPYRIGHT 2007 ACS on STN DUPLICATE 14
ACCESSION NUMBER: 2002-381009 CAPLUS Full-text
DOCUMENT NUMBER: 137-104139
TITLE: Pituitary adenylylate cyclase activating polypeptide regulates the basal production of nitric oxide in PC12 cells
AUTHOR (S) : Onoue, Satomi; Endo, Kosuke; Ohsima, Keiichi; Yajima, Takehiko; Kashimoto, Kazuhisa
CORPORATE SOURCE: Health Science Division, Itoham Foods Inc., 1-2-1, English
Kubogaoka, Moriya, Ibaraki, 302-0104, Japan
Life Sciences (2002), 71(2), 205-214
CODEN: LIPSAK; ISBN: 0024-3205
PUBLISHER: Elsevier Science Inc.
DOCUMENT TYPE: Journal
AB We investigated the neuronal role of VIP and PACAP in NO production in PC12 cells. PACAP decreased NO production in a dose-dependent manner, and the activators of protein kinase A and C also inhibited the NO production in PC12 cells. RT-PCR expts. demonstrated that PC12 cells constitutively express the mRNAs for neuronal NOS and the PACAP-specific (PAC1) receptor, and we concluded that PACAP plays an important role in the regulation of NOS activity through PAC1 receptor in PC12 cells.
CC 2-10 (Mammalian Hormones) REFERENCE COUNT: 40 THERE ARE 40 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

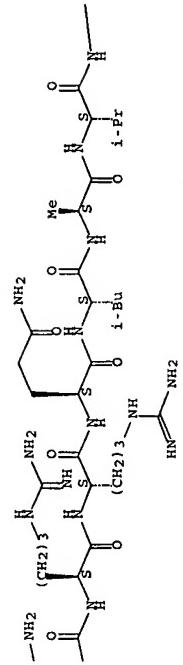
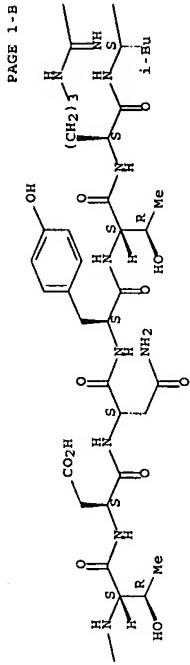
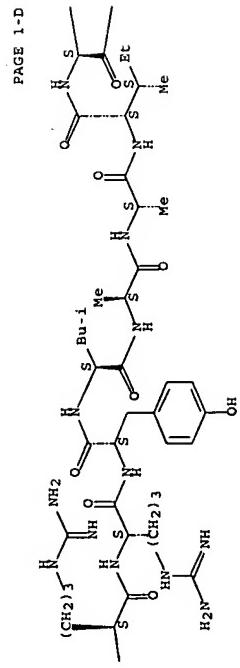
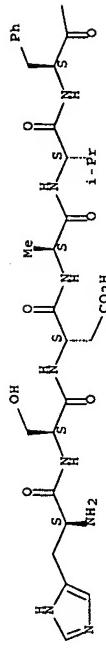
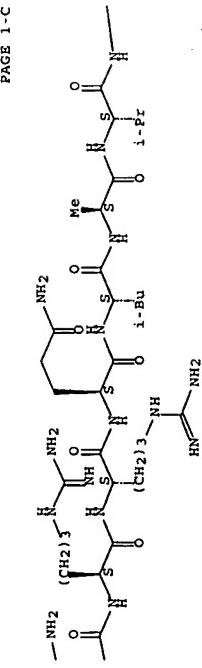
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- 10/536880
 ACCESSION NUMBER: 2003:48492 CAPLUS Full-text
 DOCUMENT NUMBER: 138:231878
 TITLE: Differences in biological activity between PACAP27 and VIP in PC12 cells depend on their N-terminal structures
- AUTHOR (S) : Onoue, Satomi; Nagano, Yumiko; Endo, Kosuke; Yajima, Takehiko; Kashimoto, Kazuhisa
 CORPORATE SOURCE: Health Science Division, Itoham Foods Inc., Ibaraki, 302-0104, Japan
 SOURCE: Pharmacology Reviews and Communications (2002), 12(4), 205-213
 CODEN: PHRCF6; ISSN: 1028-8945
 PUBLISHER: Taylor & Francis Ltd.
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 AB The functions of PACAP and VIP are thought to be exerted through the receptors. In neuronal tissues, these neuropeptides bind specifically to the PACAP-specific (PAC1) receptor and stimulate cAMP accumulation, and PACAP is approx. 103-fold more potent than VIP in these activities mediated through PAC1 receptor. In this study, the authors prepared a series of chimeric peptides in which the N-terminal residues of PACAP27/VIP replaced each other. The authors investigated the effects of these chimeric peptides on the activities of adenylyl cyclase and nitric oxide synthase in neuron-like PC12 cells. N-terminal substitution between PACAP27 and VIP significantly affected the biol. activity, whereas it showed no significant effect on the C-terminal α -helical structure of PACAP27/VIP. These results suggested that the random N-terminal structures in PACAP27/VIP play important roles in their activities and receptor specificity.
- CC 2-2 (Mammalian Hormones) REFERENCE COUNT: 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT.
- L33 ANSWER 15 OF 12 CAPLUS COPYRIGHT 2007 ACS on STN DUPLICATE 16
 ACCESSION NUMBER: 137:261273
 DOCUMENT NUMBER:
 TITLE: PACAP protects neuronal PC12 cells from the cytotoxicity of human prion protein fragment 106-126
 AUTHOR (S) : Onoue, Satomi; Ohshima, Keiichi; Endo, Kosuke; Yajima, Takehiko; Kashimoto, Kazuhisa
 CORPORATE SOURCE: Health Science Division, Itoham Foods Inc., Ibaraki, 302-0104, Japan
 SOURCE: PEBS Letters (2002), 522(1-3), 65-70
 CODEN: FEBIAL; ISSN: 0014-5793
 PUBLISHER: Elsevier Science B.V.
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 AB Misfolding of the prion protein yields amyloidogenic isoforms, and it shows exacerbating neuronal damage in neurodegenerative disorders including prion diseases. Pituitary adenylyl cyclase-activating polypeptide (PACAP) and vasoactive intestinal peptide (VIP) potently stimulate neuritogenesis and survival of neuronal cells in the central nervous system. Here, we tested these neuropeptides on neurotoxicity in PC12 cells induced by the prion protein fragment 106-126 (PrP 106-126). Concomitant application of neuropeptide with PrP(106-126) (5×10^{-5} M) inhibited the delayed death of neuron-like PC12 cells. In particular, PACAP27 inhibited the neurotoxicity of PrP(106-126) at low concns. ($> 10^{-15}$ M), characterized by the deactivation of PrP(106-126)-stimulated caspase-3. The neuroprotective effect of PACAP27 was antagonized by the selective PKA inhibitor, H89, or the MAP kinase inhibitor, U0126. These results suggest that PACAP27 attenuates PrP(106-126)-induced

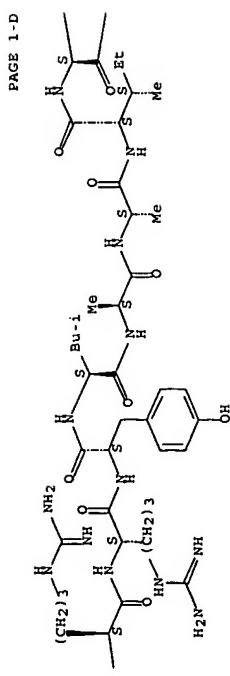
- 10/536880
 delayed neurotoxicity in PC12 cells by activating both PKA and MAP kinases mediated by PAC1 receptor.
- CC 14-10 (Mammalian Pathological Biochemistry)
 REFERENCE COUNT: 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT
- L33 ANSWER 16 OF 32 CAPLUS COPYRIGHT 2007 ACS on STN DUPLICATE 17
 ACCESSION NUMBER: 2002:561620 CAPLUS Full-Text
 DOCUMENT NUMBER: 137:346531
 TITLE: Pituitary adenylyl cyclase-activating polypeptide and vasoactive intestinal peptide attenuate glutamate-induced mROS activation and cytotoxicity
- AUTHOR (S) : Onoue, Satomi; Endo, Kosuke; Yajima, Takehiko; Kashimoto, Kazuhisa
 CORPORATE SOURCE: Health Science Division, Itoham Foods Inc., Ibaraki, 302-0104, Japan
 SOURCE: Regulatory Peptides (2002), 107(1-3), 43-47
 PUBLISHER: Elsevier Science Ltd.
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 AB Both vasoactive intestinal peptide (VIP) and pituitary adenylyl cyclase-activating polypeptide (PACAP) act as neurotransmitters in the central and peripheral nervous systems. Attention has been focused on these neuropeptides because among their numerous biol. activities, they have been confirmed to show neuroprotective effects against ischemia and glutamate-induced cytotoxicity. It is well established that glutamate has excitatory effects on neuronal cells, and that excessive glutamate shows potent neurotoxicity, especially in neuronal nitric oxide synthase-containing neurons. Glutamate stimulates the production of nitric oxide (NO) in neurons, and the NO generated is tightly associated with the delayed death of neurons. We examined the effects of these neuropeptides on the glutamate-induced neural actions using PC12 cells, and we confirmed the important activities of PACAP/VIP on the production of NO as well as the delayed cell death stimulated by glutamate.
- CC 2-5 (Mammalian Hormones) REFERENCE COUNT: 37 THERE ARE 37 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT
- L33 ANSWER 17 OF 32 CAPLUS COPYRIGHT 2007 ACS on STN DUPLICATE 18
 ACCESSION NUMBER: 1996:531504 CAPLUS Full-Text
 DOCUMENT NUMBER: 105:131504
 TITLE: Changes of glycogen and ubiquinone contents in the rat liver during hypovolemia and hepatic arterial ligation
 AUTHOR (S) : Asaki, Shinzaburo; Tanaka, Souichi; Sugishita, Takeo; Endo, Kenzaburo; Yoshida, Satoru; Matsunoto, Akihiko
 CORPORATE SOURCE: Dep. Surg., Yokohama Kouwan Hosp., Yokohama, 231-Japan
 SOURCE: Yokohama Igaku (1986), 37(2), 115-22
 DOCUMENT TYPE: Journal
 LANGUAGE: Japanese
 AB Changes in glycogen and ubiquinone contents in rat liver were examined after removal of 10 ml/kg of blood and occlusion of the hepatic artery. The mean contents of coenzyme Q10 and coenzyme Q9 at 4 h after blood removal and 3 h after hepatic artery occlusion were 76 and 103% of the control level resp. Glycogenolysis was increased after blood removal and hepatic artery occlusion.
- CC 14-5 (Mammalian Pathological Biochemistry)

Absolute stereochemistry.

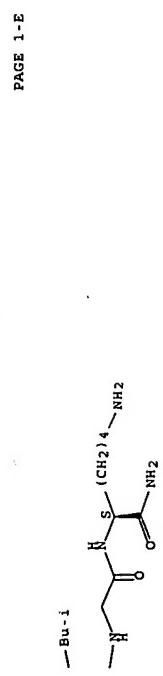
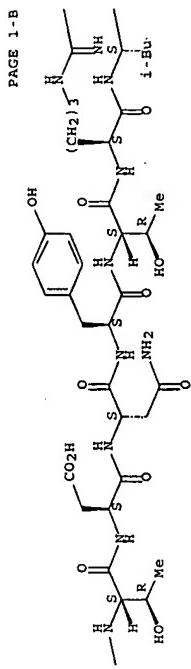


RN 700368-85-0 CAPLUS
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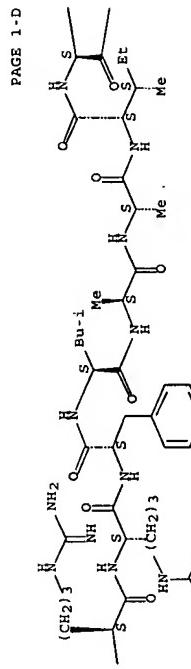
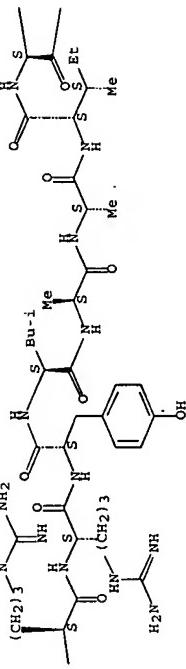
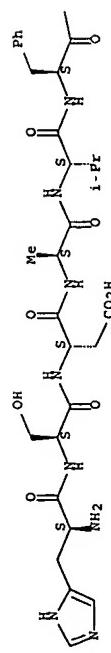


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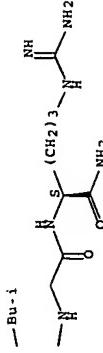
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threonyl-L-arginyl-L-leucyl-L-arginyl-L-glutaminyl-L-leucyl-L-
alanyl-L-valyl-L-arginyl-L-arginyl-L-tyrosyl-L-leucyl-L-alanyl-L-alanyl-L-
isoleucyl-L-leucylglycyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



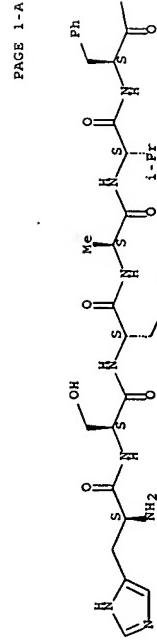
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PAGE 1-E

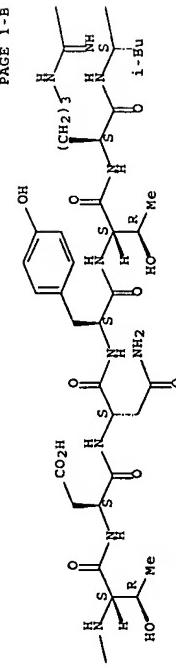


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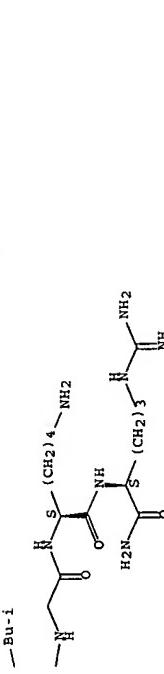
Absolute stereochemistry.



PAGE 1-A



PAGE 1-B

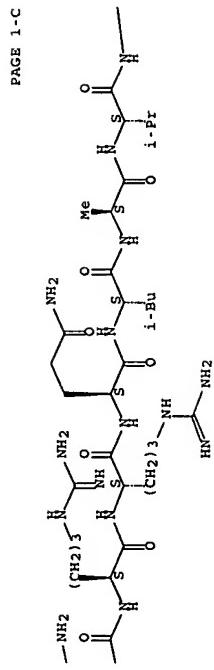
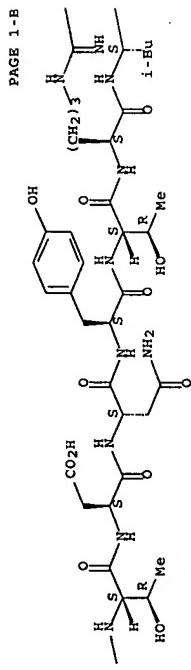
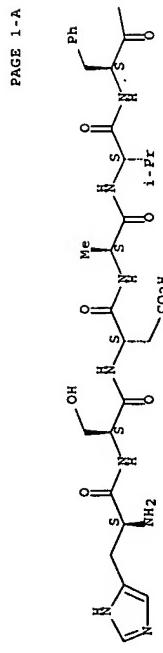


PAGE 1-C

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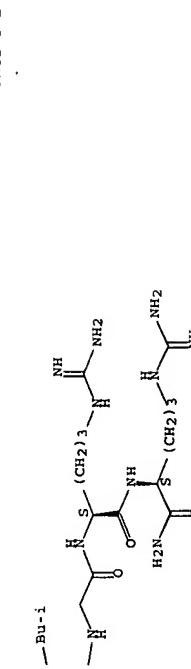
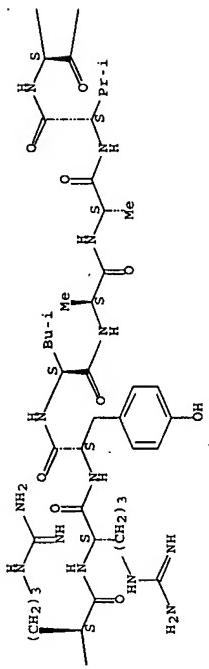
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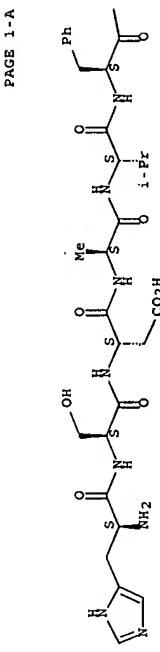
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Absolute stereochemistry.



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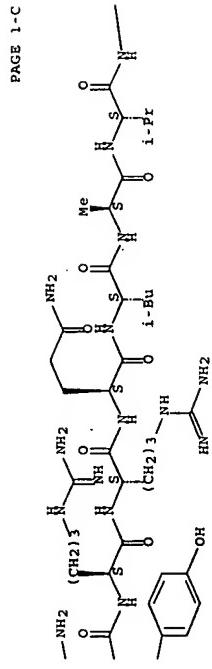
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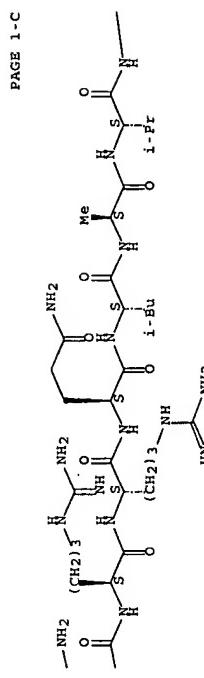
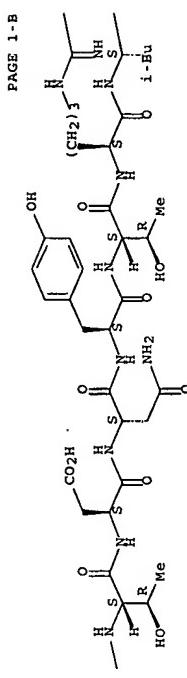
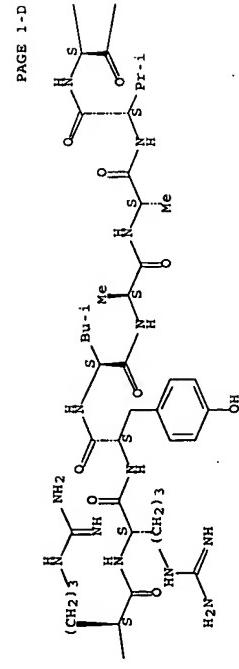
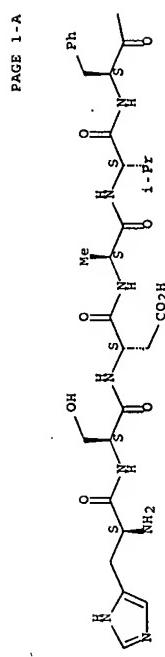
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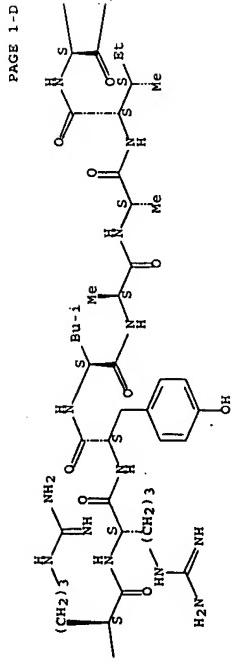
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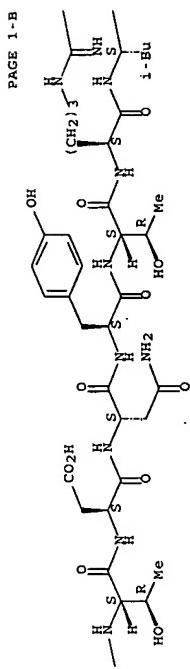
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Absolute stereochemistry.

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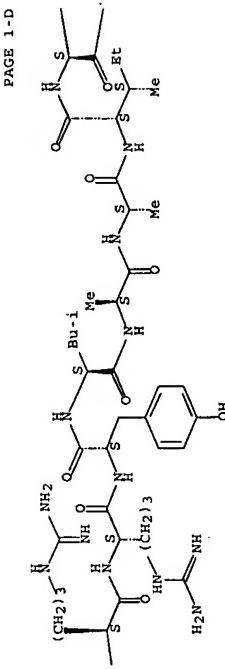
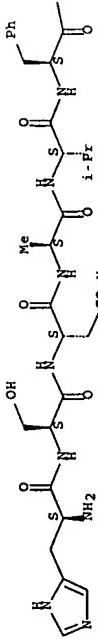


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RN 700168-85-0 CAPLOS
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Absolute stereochemistry.



59

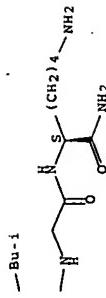
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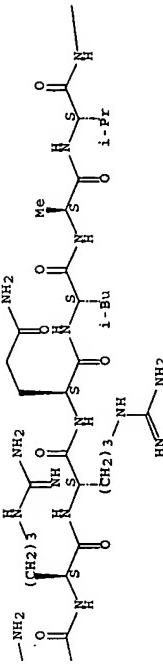
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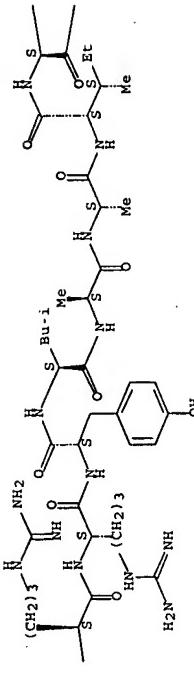
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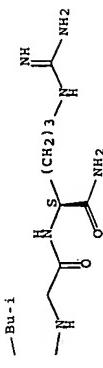
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Absolute stereochemistry.

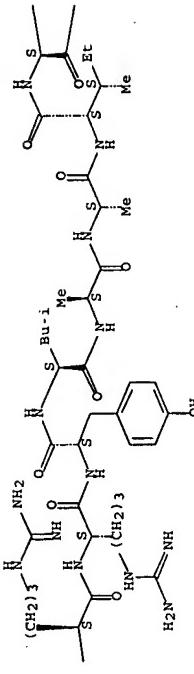
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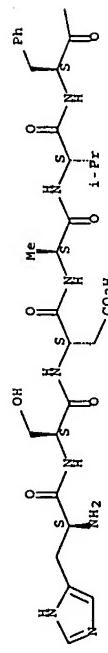
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PAGE 1-D



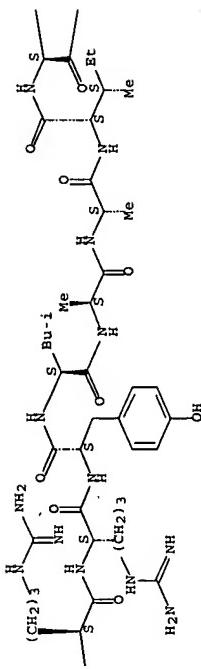
10/536880

PAGE 1-A

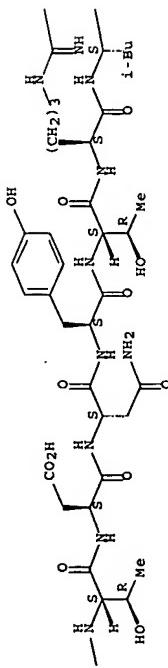


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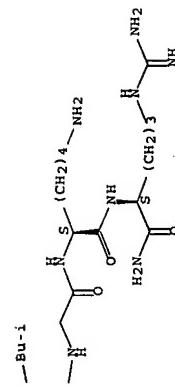
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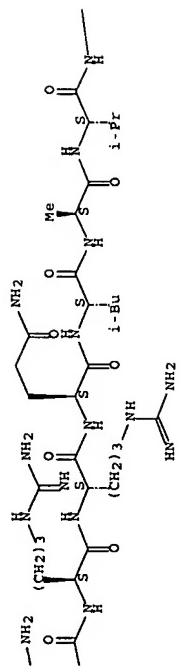
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PAGE 1-E



PAGE 1-C

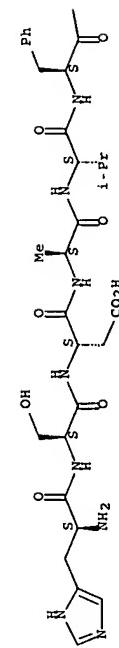


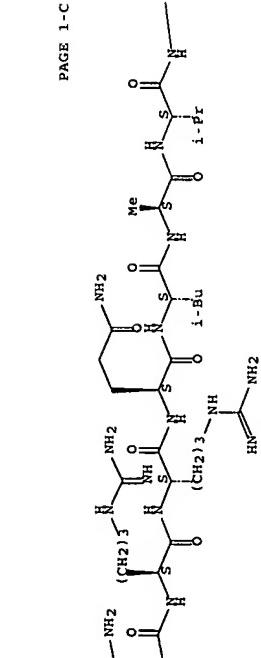
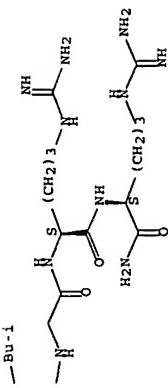
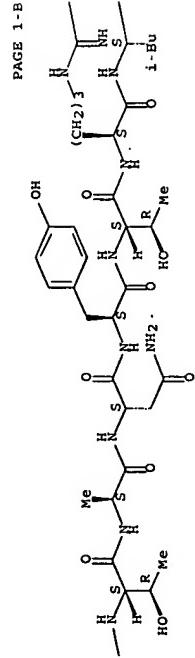
RN 735327-72-7

CALUS
CN L-Argininamide, L-histidyl-L-seryl-L-alanyl-L-valyl-L-phenylalanyl-L-threonyl-L-alanyl-L-asparaginyl-L-tyrosyl-L-arginyl-L-leucyl-L-arginy-L-arginyl-L-glutaminyl-L-leucyl-L-alanyl-L-valyl-L-arginy-L-arginy-L-tyrosyl-L-leucyl-L-alanyl-L-isoleucyl-L-leucyl-glycyl-L-arginyl-(9Cl) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

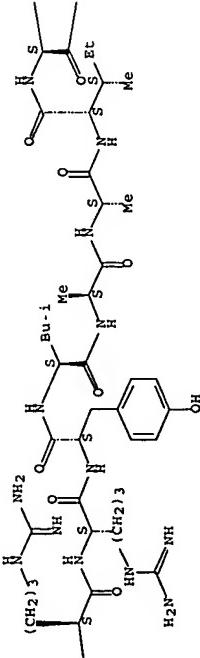




L33 ANSWER 20 OF 32 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2003:449513 CAPLUS Full-text
DOCUMENT NUMBER: 139-240497
TITLE: The structural biology of VIP (2): biological activity
of VIP is dependent on its secondary structure
AUTHOR(S): Onoue, Satomi; Matsumoto, Asami;
Nagano, Yumiko; Ohshiro, Keiichi; Ohmori, Yuki;
Yamada, Shizuo; Kimura, Ryohhei; Yamada, Takeniko;
Kashimoto, Kazuhisa
CORPORATE SOURCE: Health Science Division, Itoham Food Inc., Moriya,
Ibaraki, 302-0104, Japan
SOURCE: Peptide Science (2003), Volume Date 2002, 39th,
225-228
CODEN: PSCIFQ; ISSN: 1344-7661

PUBLISHER: Japanese Peptide Society
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The conformational properties of vasoactive intestinal peptide (VIP) include the presence of a randomized structure in the N-terminus and along α -helical structure in the C-terminus. It is still unclear how the formation of the long α -helical structure plays a role in its biol. functions. Here, in order to address this issue, we chemical synthesized VIP analogs modified at the α -helical region and evaluated their structural and biol. activities. The results have shown that the α -helical structure forming in 14 amino acid residues between positions 10 and 23 may be required for the biol. functions of VIP.
CC 2-2 (Mammalian Hormones)
REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L33 ANSWER 21 OF 32 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2002:438689 CAPLUS Full-text
DOCUMENT NUMBER: 136:406898
TITLE: Powder compositions and process for producing the same
INVENTOR(S): Onoue, Satomi; Endo, Kousuke;
Kashimoto, Kazuhisa
CORPORATE SOURCE: Itoham Foods Inc., Japan
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1



10/536880

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002043703	A1	20020606	WO 2001-JP10445	20011129
W: AU, CA, CN, IN, KR, US				
PT, SE, TR	A	20021003	JP 2001-88337	20010326
CA 2430318	A1	20020606	CA 2001-2430318	20011129
AU 200218503	A	20020611	AU 2002-18503	20011129
JP 2002034652	A	20030207	JP 2001-364325	20011129
EP 1348428	A1	20031001	EP 2001-998330	20011129
R: AT, BE, CH, DE, DK, ES, FR, GB, IT, LI, LU, NL, SE, MC, PT, IE, FY, CY, TR				
US 2004109827	A1	20040610	US 2003-432352	20030529
IN 2004CN01013	A	20050422	IN 2003-CN1013	20030626
PRIORITY APPLN. INFO.:				
JP 2000-352704	A	20001129	JP 2000-352704	20001129
JP 2001-84337	A	20010326	JP 2001-84337	20010326
WO 2001-364325	A	20011129	WO 2001-JP10445	20011129
AB Disclosed are powdery compns. obtained by mixing fine particles containing a powdery drug and a filler and having an average particle size of < 20 μm with a carrier having an aerodynamically acceptable particle size. These preps. can be easily handled in manufacturing and sustain a constant drug content due to the improved dispersibility. A powder composition containing glucagon, erythritol, and lactose was prepared, and evaluated as a dry powder inhalant.				
ICM AG1K009-14				
ICS AG1K009-127, AG1K009-19, AG1K009-72, AG1K047-10, AG1K038-00				
CC 63-6 (Pharmaceuticals)				
REFERENCE COUNT: 15	THERE ARE 15 CITED REFERENCES AVAILABLE IN THE RE FORMAT RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT			

L33 ANSWER 22 OF 32 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 200428756 CAPLUS Full-text
DOCUMENT NUMBER: 141-17635
TITLE: Development of a new derivative of vasoactive intestinal peptide and its novel administration system, dry powder inhalation
ENDO, Kosuke; Onoue, Satomi;
Amikawa, Satoko; Matsumoto, Asami; Waki, Yoshiiro; Yamakawa, Masaya; Kondo, Masaaki; Hamanaka, Kazuhisa; Saito, Itohama Food Ind., Moriya, Ibaraki, 302-0104, Japan
Peptides 2002, Proceedings of the European Peptide Symposium, 27th, Sorrento, Italy, Aug. 31-Sept. 6, 2002 (2002) 944-945. Editor(s): Benedetti, Ettore; Pedone, Carlo. Edizioni Zinco: Castellammare di Stabia, Italy.
CODEN: 69EXXG; ISBN: 88-900948-1-8

DOCUMENT TYPE: English
LANGUAGE: AB

The synthesis of a new vasoactive intestinal peptide (VIP) named IK112532, which was modified to increase its stability against enzymic digestion is discussed. The formulation of a topical administration system, dry powder inhalation (DPI) is reported. Results showed that both IK112532 and VIP showed potent relaxation of isolated tracheal smooth muscle in a dose-dependent manner. IK112532 was approx. 103-fold more potent in inducing relaxation than theophylline after histamine (10-5 M)-induced contraction and

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had an EC50 value of $2.0 \times 10^{-7} \text{ M}$. The addition of peptidase, including trypsin, to a solution of IK112532 or VIP showed the time-dependent digestion of these peptides, and also revealed that the elimination of IK112532 was much slower than that of VIP. These results suggest that the duration of IK112532 was due to its stability against peptidase-induced elimination. On the other hand, when IK112532 was applied to the optimized DPI formula, erythritol-excipient/erythritol-carrier, the RF value was estimated to be up to 19.7%. However, erythritol-excipient/Pharmatose-carrier blend had a better RF value of 29.2%, indicating that the optimized formula of DPI was dependent on each pharmaceutical agent. Considered with other peptides, this formula, with the use of erythritol for the excipient and/or carrier, is applicable to the peptide/protein.

CC 63-6 (Pharmaceuticals)

REFERENCE COUNT: 2

THERE ARE 2 CITED REFERENCES AVAILABLE IN THE RE FORMAT RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L33 ANSWER 23 OF 32 CAPLUS COPYRIGHT 2007 ACS on STN ACCESSION NUMBER: 2002-517561 CAPLUS Full-text DOCUMENT NUMBER: 137-136243	The relaxation effects of VIP and its C-terminal deleted peptides on mouse stomach
AUTHOR(S): Naganuma, Yumiiko; Matsumoto, Asami; Onoue, Saori; Harada, Suncie; Mizumoto, Takanobu; Saito, Itohama Food Inc., Moriya, Ibaraki, 302-0104, Japan Peptide Science (2002), Volume Date 2001, 38th, 147-150	CORPORATE SOURCE: SOURCE: CODEN: PSCIFQ; ISSN: 1344-7661 Japanese Peptide Society Journal
PUBLISHER: DOCUMENT TYPE: LANGUAGE: AB Some brain-gut/gastrointestinal peptides, belonging to glucagon-secretin family, are well-known to have the potent inhibitory effects on gastric motility. In this study, we investigated the relaxation effects of some peptides of this family on mouse stomach using some family peptides, and we confirmed the most potent activity of VIP among tested peptides. We, therefore, have been interested in this relaxation activity and structure of VIP, so we clarified the relationship between its structures and activities of shortened VIP-derivs., which were truncated at N- or C-terminal ends. These investigations gave us further information concerning with a main peptide fragment of VIP, which was necessary for a potent relaxation effect on mouse stomach.	DOCUMENT NUMBER: TITLE: AUTHOR(S): Naganuma, Yumiiko; Matsumoto, Asami; Onoue, Saori; Harada, Suncie; Mizumoto, Takanobu; Saito, Itohama Food Inc., Moriya, Ibaraki, 302-0104, Japan Peptides 2002, Proceedings of the European Peptide Symposium, 27th, Sorrento, Italy, Aug. 31-Sept. 6, 2002 (2002) 944-945. Editor(s): Benedetti, Ettore; Pedone, Carlo. Edizioni Zinco: Castellammare di Stabia, Italy. CODEN: 69EXXG; ISBN: 88-900948-1-8
L33 ANSWER 24 OF 32 CAPLUS COPYRIGHT 2007 ACS on STN ACCESSION NUMBER: 1998-550347 CAPLUS Full-text DOCUMENT NUMBER: 129-224450	Insulating film, semiconductor device using such film, and method for manufacture thereof
INVENTOR(S): Matsubara, Takanobu; Noguchi, Nobu; Ito, Shinya; Ota, Noriaki; Matsumoto, Akira; Ishigami, Takashi; Nakane, Masahiko; Horiuchi, Tadahiko; Endo, Kazuhiko; Tatsumi, Toru; Matsumoto, Yoshihige NBC Corp., Japan Jpn. Kokai Tokkyo Koho, 19 pp.	REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE IN THE RE FORMAT RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

10/536880

Last Updated on STN: 17 Sep 2003
 General biology - Symposia, transactions and proceedings
 Biochemistry studies - Nucleic acids, purines and
 Pyrimidines 10062
 Biochemistry studies - Proteins, peptides and amino acids
 10064
 Enzymes - General and comparative studies: coenzymes
 10802
 Respiratory system - Physiology and biochemistry 16004
 Toxicology system - Pathology 16006
 Major Concepts
 Respiratory System (Respiration); Toxicology
 Diseases chronic obstructive pulmonary disease: respiratory
 system disease. COPD
 Lung Diseases, Obstructive (MeSH)
 Chemicals & Biochemicals
 DNA: fragmentation; LDH [lactate dehydrogenase];
 caspase-3; matrix metalloproteinase (MMP); vasoactive
 intestinal peptide [VIP]
 Miscellaneous Descriptors
 cigarette smoke: cytotoxicity
 Classifier Muridae 86375
 Super Taxa Rodentia; Mammalia; Vertebrata; Chordata; Animalia
 Organism Name L2 cell line (cell line): rat alveolar cells
 Taxa Notes
 Animalia; Chordates, Mammals, Nonhuman Vertebrates,
 Nonhuman Mammals, Rodents, Vertebrates
 9001-60-9 (LDH)
 9001-60-9 (lactate dehydrogenase)
 169592-56-7 (caspase-3)
 141907-41-7 (matrix metalloproteinase)
 141907-41-7 (MMP)
 37221-79-7 (vasoactive intestinal peptide)
 37221-79-7 (VIP)

REGISTRY NUMBER:
 L33 ANSWER 28 OF 32 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on
 STN
 ACCESSION NUMBER: 2007:21901 BIOSIS Full-text
 DOCUMENT NUMBER: PREV0070034563
 TITLE: Alpha-helical structure of vasoactive intestinal peptide is
 essential to its biological functions.
 Onoue, Satomi [Reprint Author]; Matsumoto, Asami; Ohmori, Yukin; Yamada, Shizuo; Liu, Baosheng;
 Yajima, Takehiko
 Ito Life Sci Inc, Ibaraki 3020104, Japan
 Flegei, M [Editor]; Fridkin, M [Editor]; Gilon, C [Editor];
 Shaninova, J [Editor]. (2005) pp. 747-743. Peptides 2004,
 Proceedings-BRIDGES BETWEEN DISCIPLINES.
 Publisher: KENES INTERNATIONAL, 17 RUE DU CENDRIER, PO BOX
 1726, GENEVA 1, CH-1211 SWITZERLAND
 Meeting Info.: 3rd International Peptide Symposium/28th
 European Peptide Symposium. Prague, CZECH REPUBLIC.
 September 05 -10, 2004.

CORPORATE SOURCE:
 SOURCE:

ISBN: 965-90833-0-0 (H).
 Book: (Book Chapter)
 Conference; (Meeting)
 English
 ENTRY DATE: 27 Dec 2006
 Last Updated on STN: 27 Dec 2006
 Behavioral biology - Human behavior 07004
 Biochemistry studies - Proteins, peptides and amino acids
 10064
 Enzymes - General and comparative studies: coenzymes
 10802
 Pathology - Therapy 12512
 Metabolism - Metabolic disorders 13020
 Respiratory system - Pathology 16006
 Reproductive system - Pathology 16506
 Endocrine - Pancreas 17008
 Nervous system - Pathology 20506
 Psychiatry - Psychopathology, psychodynamics and therapy
 21002
 Pharmacology - General 22002
 Pharmacology - Drug metabolism and metabolic stimulators
 22003
 Pharmacology - Clinical pharmacology 22005
 Immunology - Immunopathology, tissue immunology 34508
 Allergy 35500
 Major Concepts
 Pharmacology
 Diseases asthma: respiratory system disease, immune system
 disease, drug therapy
 Asthma (MeSH)
 Diseases diabetes: endocrine disease/pancreas, metabolic disease,
 drug therapy
 Diabetes Mellitus (MeSH)
 Diseases dementia: nervous system disease, behavioral and mental
 disorders, drug therapy
 Dementia (MeSH)
 Diseases impotence: reproductive system disease/male, behavioral
 and mental disorders, drug therapy
 Impotence (MeSH)
 Diseases inflammation: immune system disease, drug therapy
 Inflammation (MeSH)
 Chemicals & Biochemicals
 nitric oxide synthase [EC 1.14.13.39]; adenylate cyclase
 [EC 4.6.1.1]; PACAP; neurite outgrowth factor;
 vasoactive intestinal peptide [VIP]: metabolic-drug
 Classifier Hominidae 86215
 Super Taxa Primates; Mammalia; Vertebrata; Chordata; Animalia
 Organism Name human (common)
 Taxa Notes Animals, Chordates, Humans, Mammals, Primates,
 Vertebrates
 REGISTRY NUMBER: 125978-95-2 (nitric oxide synthase)

INDEX TERMS:	asthma: immune system disease, respiratory system disease
Asthma (MeSH)	Pulmonary disease: respiratory system disease
Diseases	Lung Diseases (MeSH)
INDEX TERMS:	Chemicals & Biochemicals
ORGANISM:	IK1252: antiasthmatic-drug, inhalation administration powder; vasoactive intestinal peptide [VIP]; antiasthmatic-drug, analogue, inhalation administration
INDEX TERMS:	Methods & Equipment
ORGANISM:	drug powder inhaler: drug delivery device
CLASSIFIER:	Super Taxa
Caviidae	Rodentia; Mammalia; Vertebrata; Chordata; Animalia
Organism Name	Guinea-pig (common): animal model
TAXA NOTES	Animals, Chordates, Mammals, Nonhuman Vertebrates, Nonhuman Mammals, Rodents, Vertebrates
CLASSIFIER:	Hominidae 86215
Super Taxa	Primates; Mammalia; Vertebrata; Chordata; Animalia
Organism Name	human (common): patient
TAXA NOTES	Animals, Chordates, Humans, Mammals, Primates, Vertebrates
REGISTRY NUMBER:	37221-79-7 (vasoactive intestinal peptide) 37221-79-7 (VIP)
L13 ANSWER 31 OF 32 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation	STN 2002:557424 BIOSIS Full-text
ACCESSION NUMBER:	PREV20020057424
DOCUMENT NUMBER:	Development of a new derivative of vasoactive intestinal peptide and its novel administration system, dry powder inhalation.
TITLE:	Endo, K. (Reprint author); Onoue, S. (Reprint author); Amakawa, S. (Reprint author); Matsunoto, A. (Reprint author); Waki, Y. (Reprint author); Yamamoto, M. (Reprint author); Kondo, M. (Reprint author); Hamanaka, K. (Reprint author); Sutani, Y. (Reprint author); Kasihama, K. (Reprint author); Moriya, Ibaraki, 302-0104, Japan
CORPORATE SOURCE:	Health Science Div., Itoham Food Inc., 1-2-1 Kubogaoka, Journal of Peptide Science, (2002) Vol. 8, No. Suppl. PP. S214. print.
SOURCE:	Meeting Info.: 27th European Peptide Symposium. Sorrento, Italy. August 31-September 06, 2002. ISSN: 1075-2617.
DOCUMENT TYPE:	Conference; (Meeting) Conference; Abstract; (Meeting Abstract) Conference; (Meeting Poster)
LANGUAGE:	English
ENTRY DATE:	Entered STN: 30 Oct 2002
CONCEPT CODE:	Last Updated on STN: 30 Oct 2002 General biology - Symposia, transactions and proceedings

10/536880

Biochemistry and Molecular Biophysics; Nervous System
(Neural Coordination)

Parts, Structures, & Systems of Organisms
neuron; nervous system

Diseases
Alzheimer's disease; behavioral and mental disorders,
nervous system disease

Alzheimer Disease (MeSH)

Chemicals & Biochemicals

PAC1 receptor; beta-amyloid; neurotoxicity; caspase-3;
polypeptide; pituitary adenylate cyclase activating
humanin; pituitary adenylate cyclase activating
peptide

Miscellaneous Descriptors

signaling pathway; Meeting Abstract; Meeting Poster

Classifier

Muridae 86375

Super Taxa
Rodentia; Mammalia; Vertebrata; Chordata; Animalia

Organism Name

PC12 cell line

Taxa Notes

Animalia; Chordates; Mammals; Nonhuman Vertebrates,

Nonhuman Mammals; Rodents; Vertebrates

169592-56-7 (caspase-3)

137061-48-4 (pituitary adenylate cyclase activating
polypeptide)

37221-79-7 (vasoactive intestinal peptide)

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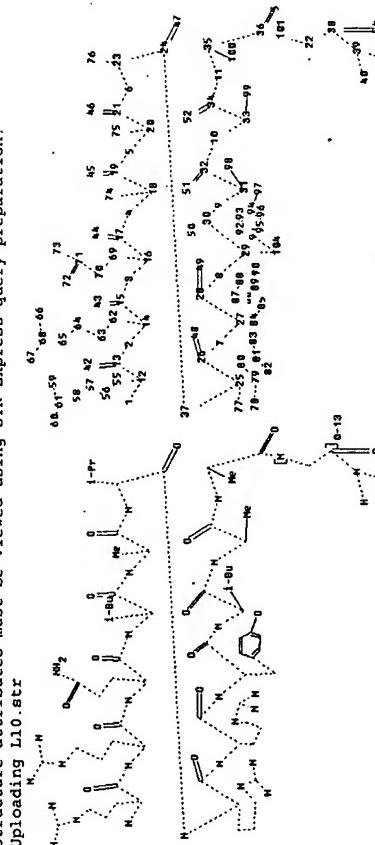
FILE COVERS 1907 - 30 Jan 2007 VOL 146 ISS 6
FILE LAST UPDATED: 29 Jan 2007 (20070129/ED)

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<http://www.cas.org/infpolicy.html>

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L6 54 SEA FILE=REGISTRY ABB=ON PLU=ON HSDA [IV] FT [DEA] [SND] Y [ST] R YL
L8 30 SEA FILE=REGISTRY ABB=ON PLU=ON L6 AND L3
L9 4 SEA FILE=CAPLUS ABB=ON PLU=ON L8

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"> d stat que L16
L10 STR
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10:CLASS 11:CLASS 12:CLASS 13:CLASS 14:CLASS 15:CLASS 16:CLASS 17:CLASS
18:CLASS 19:CLASS 20:CLASS 21:CLASS 22:CLASS 23:CLASS 24:CLASS 25:CLASS 26:CLASS
28:CLASS 29:CLASS 30:CLASS 31:CLASS 32:CLASS 33:CLASS 34:CLASS 35:CLASS 36:CLASS
37:CLASS
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31-98 33-99 35-100
normalized bonds :
91-95 91-92 92-93 93-94 94-96 95-96

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91 92 93 94 95 96
chain bonds :
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8-29 9-10 9-31 10-32 10-33 11-34 11-35 12-13 12-55 13-42 14-15 14-62
15-43 16-17 16-69
17-44 18-19 18-74 19-45 20-21 20-75 21-46 27-28 27-84 28-49 29-30 29-31 29-32 29-33 29-34 29-35 29-36 29-37
24-47 25-37 25-77 26-48 27-28 27-84 28-49 29-30 29-104 30-50 31-12 31-58 32-51
33-34 33-99
34-52 35-36 35-100 36-53 36-101 38-39 38-54 39-40 39-41 55-56 56-57 57-
58-61 60-61 62-63 63-64 64-65 65-68 66-68 67-68 69-70 70-71 71-72 71-73
77-78 78-79 79-80
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ring bonds :
91-95 91-92 92-93 93-94 94-96 95-96
exact/norm bonds :
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8-29 9-30 9-31 10-32 10-33 11-34 11-35 12-13 12-55 13-42 14-15 14-62
15-43 16-17 16-69
17-44 18-19 18-74 19-45 20-21 20-75 21-46 22-38 22-101 23-24 23-76 24-37
24-47 25-37 25-77 26-48 27-28 27-84 28-49 29-30 29-104 30-50 31-32 32-51 33-34
34-52 35-36 35-100 36-53 36-101 38-39 38-54 39-40 39-41 55-56 56-57 57-
58-61 60-61 62-63 63-64 64-65 65-68 66-68 67-68 69-70 70-71 71-72 71-73
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L34 6 (L9 OR L16) NOT L32
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FILE COVERS 1907 TO 30 Jan 2007 (20070130/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

The MEDLINE file segment has been updated with 2007 MeSH terms and See HELP RLOAD for details.

10/536880

TOXCENTR thesauri in the /CN, /CT, and /MN fields incorporate the
MESH 2007 vocabulary.

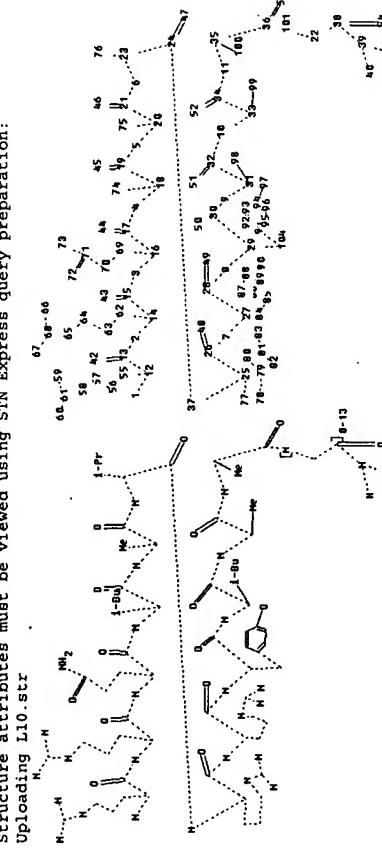
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8-29 9-30 9-31 10-32 10-33 11-34 11-35 12-13 12-35 13-42 14-15 14-62

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17-44 18-19 18-74 19-45 20-21 20-75 21-46 22-38 22-101 23-24 23-76 24-37

24-47 25-37

25-26 25-77 26-48 27-28 27-84 28-49 29-30 29-104 30-50 31-32 32-51 33-34

34-52 35-36

36-53 36-101 38-39 38-54

39-40 39-41 55-56 56-57 57-58 58-61 59-61 60-61

62-63 63-64

64-65 65-68 66-68 67-68 69-70 70-71 71-72 71-73 77-78 78-79 79-80 80-81

81-82 81-83

84-85 85-86 86-87 87-88 88-89 88-90 91-104 91-104 94-97

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normalized bonds :

91-95 91-92 92-93 93-94 94-96 95-96

Match level :

1:CLASS 2:CLASS 3:CLASS 4:CLASS 5:CLASS 6:CLASS 7:CLASS 8:CLASS 9:CLASS

10:CLASS 11:CLASS 12:CLASS 13:CLASS 14:CLASS 15:CLASS 16:CLASS 17:CLASS

18:CLASS 19:CLASS 21:CLASS 22:CLASS 23:CLASS 24:CLASS 25:CLASS 26:CLASS

28:CLASS 29:CLASS 31:CLASS 32:CLASS 33:CLASS 34:CLASS 35:CLASS 36:CLASS

30:CLASS 39:CLASS 40:CLASS 41:CLASS 42:CLASS 43:CLASS 44:CLASS 45:CLASS

48:CLASS 49:CLASS 50:CLASS 51:CLASS 52:CLASS 53:CLASS 54:CLASS 55:CLASS

58:CLASS 59:CLASS 60:CLASS 61:CLASS 62:CLASS 63:CLASS 64:CLASS 65:CLASS

66:CLASS 69:CLASS 70:CLASS 71:CLASS 72:CLASS 73:CLASS 74:CLASS 75:CLASS

78:CLASS 79:CLASS 80:CLASS 81:CLASS 82:CLASS 83:CLASS 84:CLASS 85:CLASS

88:CLASS 89:CLASS 90:CLASS 91:Atom 92:Atom 93:Atom 94:Atom 95:Atom 96:Atom 97:CLASS 98:CLASS

99:CLASS 100:CLASS 101:CLASS 104:CLASS

ring nodes :

91 92 93 94 95 96

chain bonds :

1-12 2-13 2-14 3-15 3-16 4-17 4-18 5-19 5-20 6-21 6-23 7-26 7-27 8-28

8-29 9-30 9-31 10-32 10-33 11-34 11-35 12-13 12-35 13-42 14-15 14-62

15-43 16-17 16-69

17-44 18-19 18-74 19-45 20-21 20-75 21-46 22-38 22-101 23-24 23-76 24-37

24-47 25-37

25-26 25-77 26-48 27-28 27-84 28-49 29-30 29-104 30-50 31-32 31-98 32-51

33-34 33-99

34-52 35-36 35-100 36-53 36-101 38-39 38-54 39-40 39-41 55-56 56-57 57-

58 58-61 60-61 62-63 63-64 64-65 65-68 66-68 67-68 69-70 70-71 71-72 71-73

77-78 78-79 79-80 80-81 81-82 81-83 84-85 85-86 86-87 87-88 88-89 88-90 91-104 94-97

ring bonds :

91-95 91-92 92-93 93-94 94-96 95-96

exact/norm bonds :

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58 58-61 60-61 62-63 63-64 64-65 65-68 66-68 67-68 69-70 70-

INVENTOR(S): agents Yamada, Shizuo; Ogami, Masayoshi; Kashimoto, Kazuhisa
PATENT ASSIGNEE(S): Ito Ham Foods, Inc., Japan
SOURCE: Jpn. Kokai Tokyo Koho, 62 pp.
CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

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FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004224775	A	20040812	JP 2003-17909	20030127
PRIORITY APPLN. INFO.:			JP 2003-17909	20030127

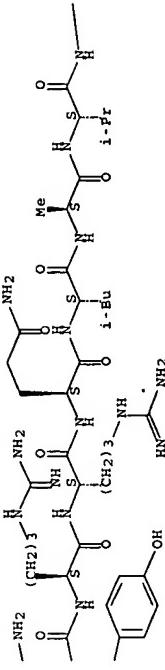
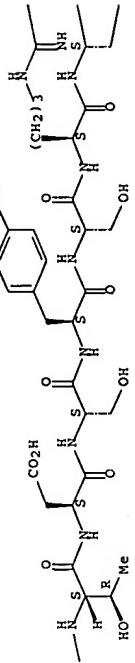
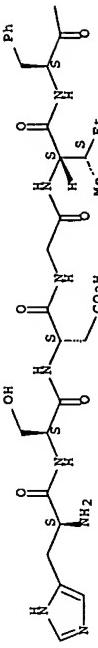
AB PACAP and VIP peptide derivs. (I) and their pharmaceutically acceptable salts in nasal drops, eyedrops, injections, and other topical preps., are claimed as antiinflammatory agents for treatments of allergic asthma, bronchitis, conjunctivitis, autoimmune disease, atopic dermatitis etc. I were prepared, their formulation examples were given, and their VIP receptor-binding affinity and antiinflammatory action were tested.

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	ICS	A61P038-00		
CC	1-7 (Pharmacology)			
IT	Section cross-reference(s): 34, 63			
	40075-4P, Vasotocin, Octapeptide (swine)	127317-03-7P		
	40075-4P, Vasotocin, Octapeptide (bovine)	134582-08-4P		
	132333-38-1P, 13582-06-2P	134582-07-3P		
	134882-10-8P, 17765-24-3P	176785-25-4P	475081-13-7P	
	700368-79-2P, 700368-81-6P	700368-83-8P	700368-85-0P	
	700368-79-2P, 700368-81-6P	700368-92-9P	700368-94-1P	
	700168-96-1P, 700168-98-5P	700359-00-2P	700369-02-4P	
	735327-71-6P, 735327-72-7P	735327-76-1P	735801-12-6P	
	735801-23-1P, 735801-24-8P	735801-25-9P	735801-26-0P	
	735801-27-1P, 735801-28-2P	735801-29-3P	735801-30-6P	
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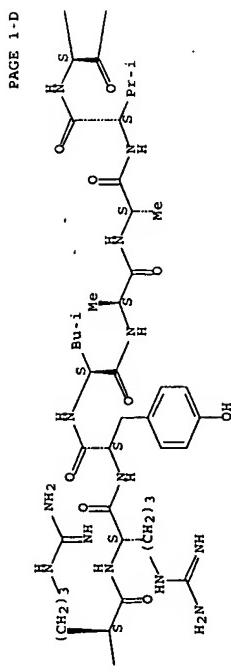
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	7353801-72-7P	735801-24-1P	735801-25-9P
	735801-28-2P	735801-31-7P	735801-32-8P
	735801-33-9P	735801-35-1P	735801-36-2P
RL:	PAC (Pharmacological activity); SPN (Synthetic preparation); THO (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)		
(synch)	and VTP peptide derivs.	as auxiliaries and auxiliaries	and auxiliaries

agents)	CPLUS	L-histidyl-L-seryl- α -aspartylglycyl-L-isoleucyl-L-phenylalanyl-L-threonyl-L- α -aspartyl-L-seryl-L-tyrosyl-L-seryl-L-arginyl-L-tyrosyl-L-alanyl-L-glutaminyl-L-leucyl-L-alanyl-L-valyl-L-Larginyl-L-tyrosyl-L-leucyl-L-alanyl-L-alanyl-L-valyl-L-tyrosyl-L-alanyl-L-alanyl-L-valyl-L-
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L-Leucinamide,	CN	

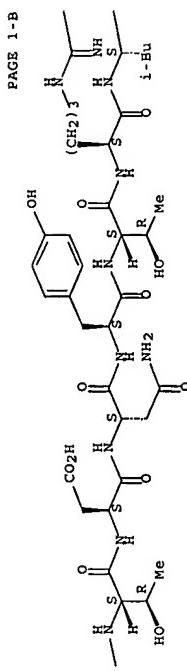
Absolute stereochemistry.



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10/536880



RN 700368-83-8 CAPLUS
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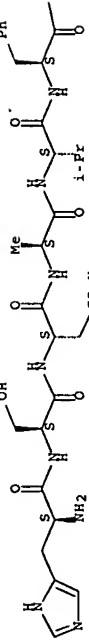
Absolute stereochemistry.

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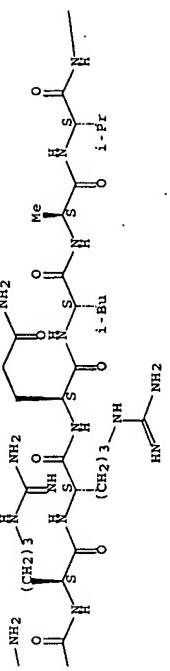


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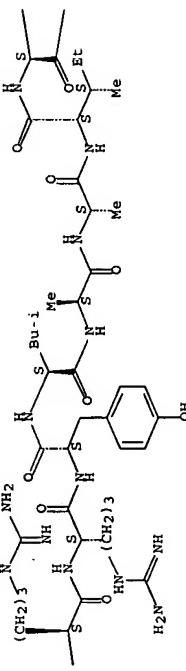
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PAGE 1 - D

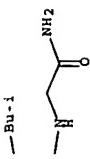


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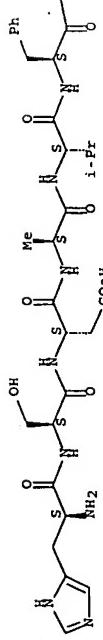
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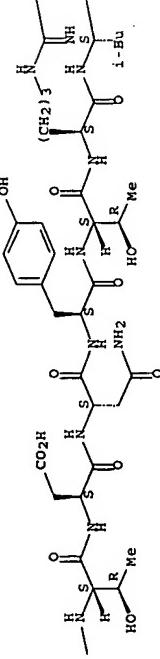
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Absolute stereochemistry.

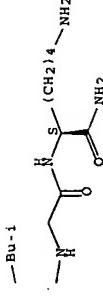
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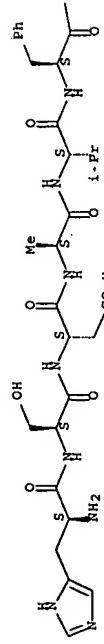


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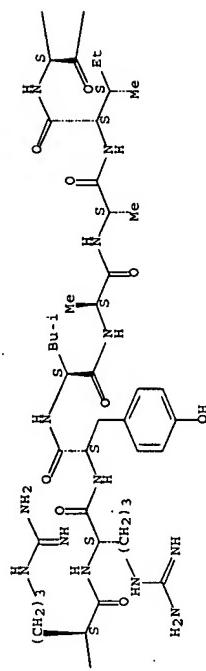
Absolute stereochemistry:

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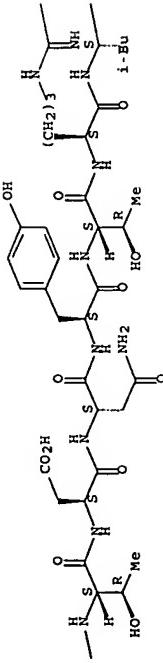


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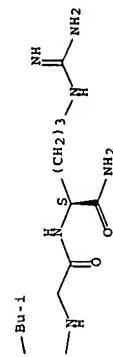


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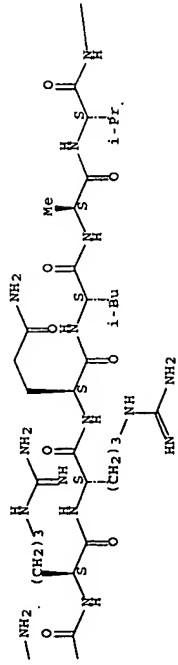
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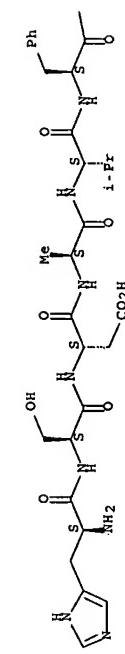


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RN 700368-90-7 CAPLUS
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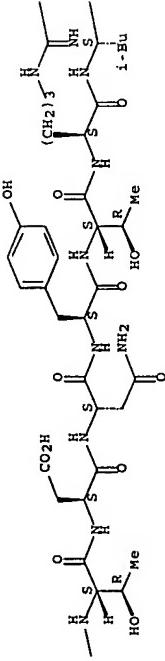
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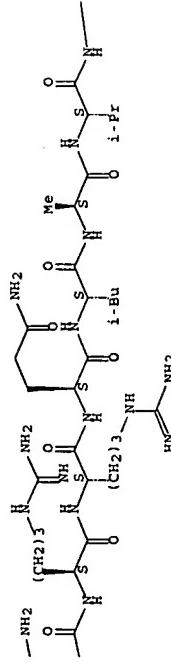
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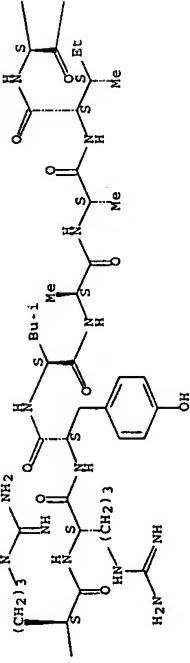
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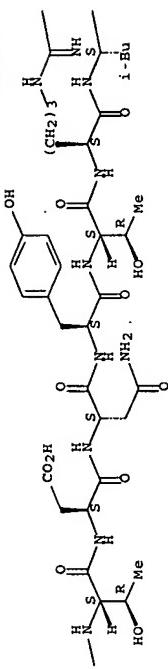
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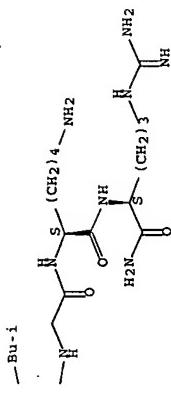


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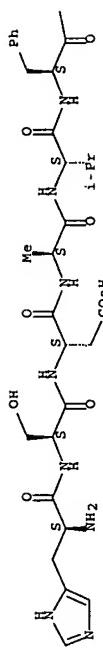


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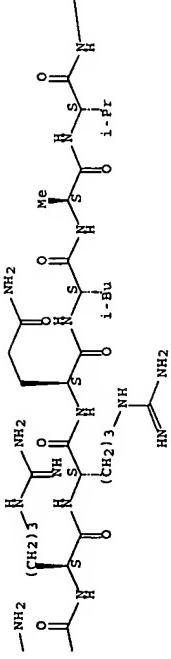


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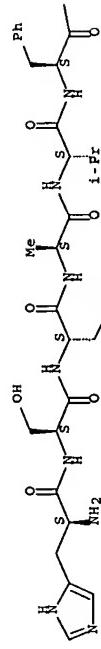


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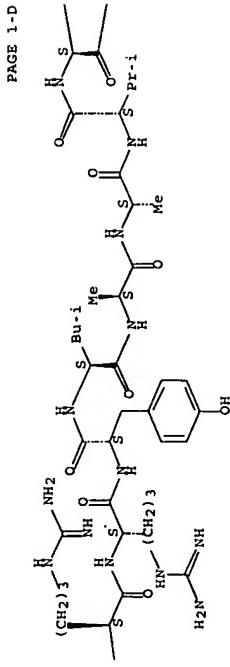
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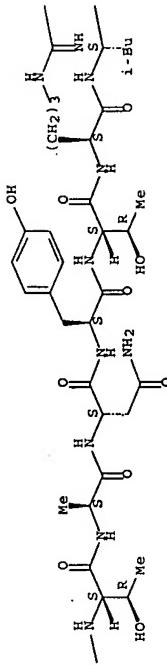
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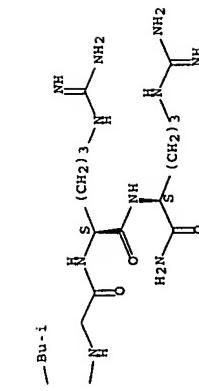
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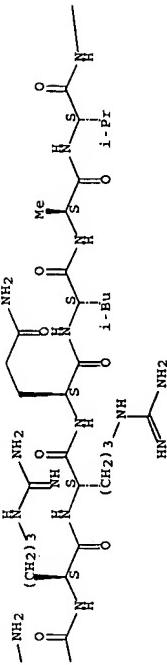
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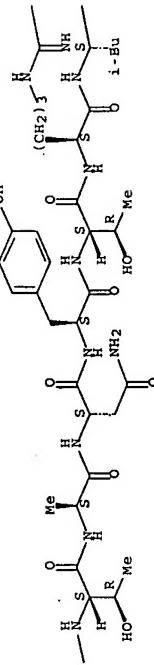
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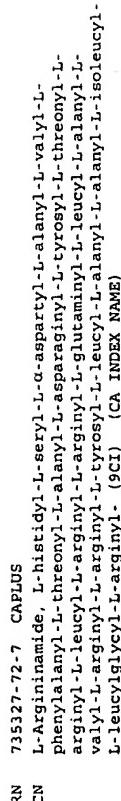
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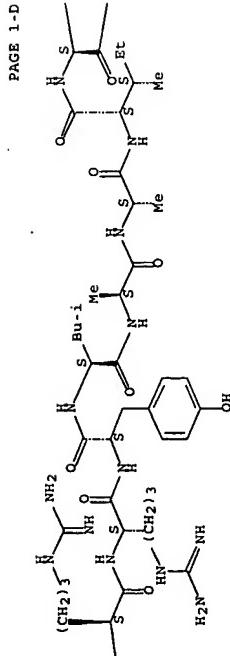
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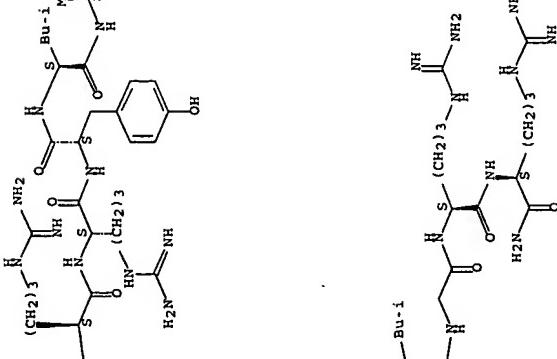
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RN 735801-33-9 CAPLUS

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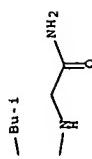
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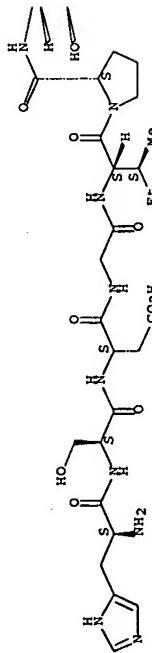
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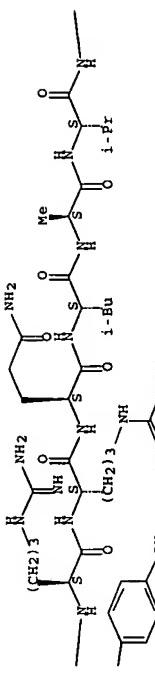
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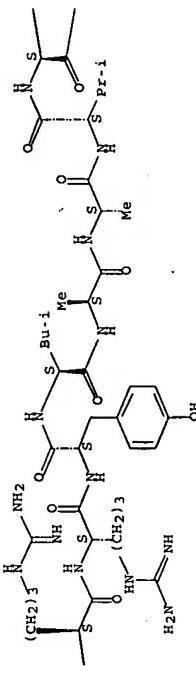
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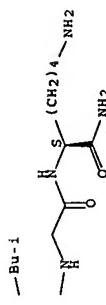


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RN 705926-35-8 CAPLUS
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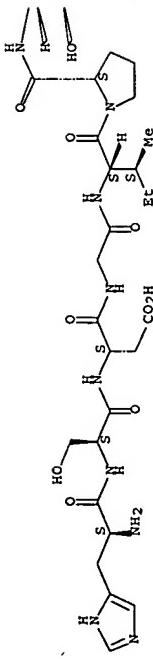
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99

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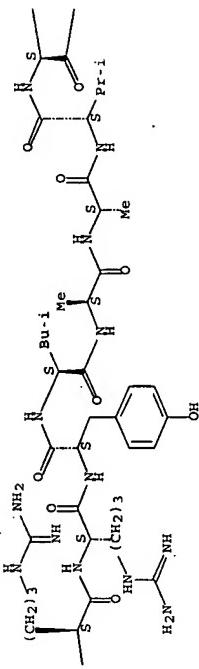
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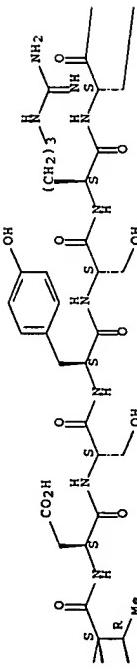


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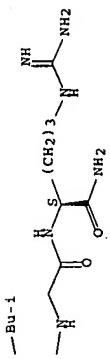
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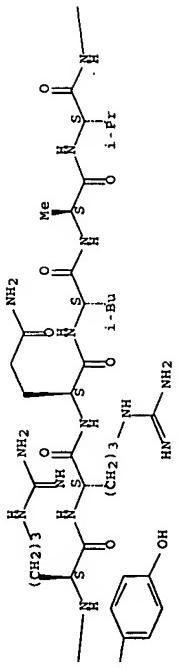
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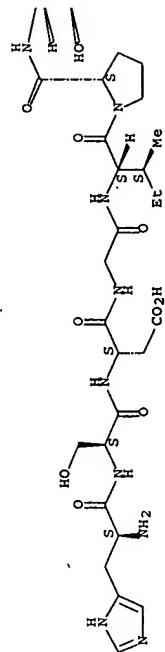
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Absolute stereochemistry.

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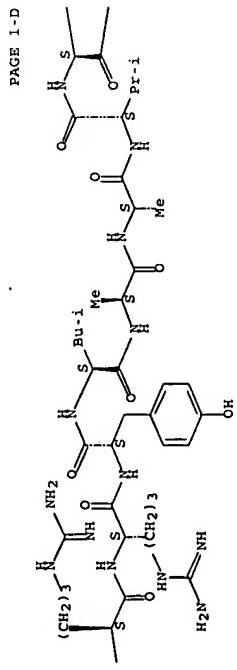
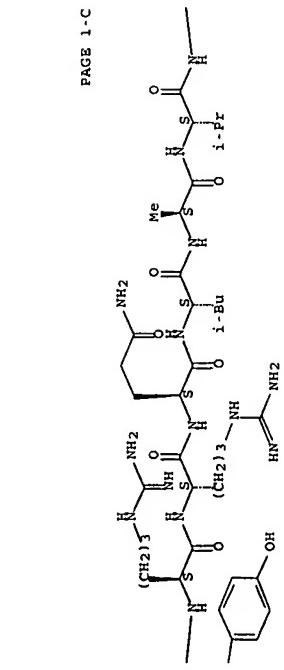
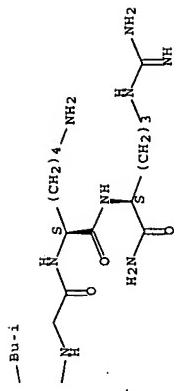
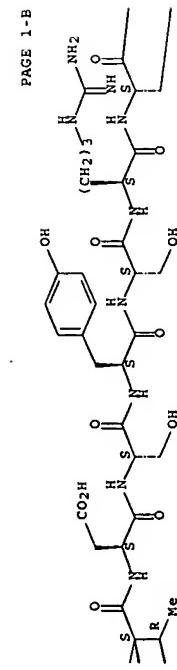


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101

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L34 ANSWER 3 OF 6 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1998:240334 CAPLUS Full-Text
DOCUMENT NUMBER: 12:761
TITLE: Sustained relaxant action of [Arg15,20,21, Leu17]-PACAP-27-NH2 on carbachol-induced contraction of guinea pig tracheal smooth muscle *in vitro*

AUTHOR(S): Linden, Anders; Ichimura, Tonju; Yamada, Yumi; Yoshihara, Shigemi; Kasahiro, Kazuhisa;

CORPORATE SOURCE: First Department Pediatrics, Dokkyo University School of Medicine, Tochigi, 321-0293, Japan

SOURCE: Biomedical Research (1998), 19(1), 39-44
CODEN: BRSDS; ISSN: 0388-6107

PUBLISHER: Biomedical Research Foundation

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Duration of relaxant action of an analog of pituitary adenylyl cyclase activating peptide (PACAP)-27, [Arg15,20,21, Leu17]-PACAP-27-NH2, was compared with that of PACAP-27 in the smooth muscle isolated from guinea-pig trachea. The relaxant action was examined on the prolonged contracted state of the smooth muscle, which had been stimulated with carbachol (CCh; 0.1 μM). Addition of the analog caused concentration-dependent relaxation; both the onset and offset of which were much slower than those with PACAP-27, vasoactive intestinal polypeptide (VIP), and peptide histidine isoleucine (PHI). More than 90% of the maximum relaxation was maintained for 6 h after addition of the analog, whereas the relaxation induced by PACAP-27, VIP, and PHI reached a maximum by 20 min after the addition and was followed by gradual contraction. Influence of peptidases involved in the smooth muscle preparation on the peptides was examined using 10 μM captopril and 1 μM phosphoramidon as peptidase inhibitors. Although the efficacy and duration of the relaxant action with PACAP-27 were significantly potentiated in the presence of peptidase inhibitor, those with the analog were only slightly affected. A conclusion is drawn that the analog has sustained relaxant action on CCh-induced contraction of the tracheal smooth muscle, and that this sustained action is, at least in part, due to much lower susceptibility of the analog to degradation by peptidases, implying an advantage of the analog in clin. application.

CC 2-5 (Mammalian Hormones)
IT 176782-24-3
RL BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study, Uses); (Uses); (Uses)

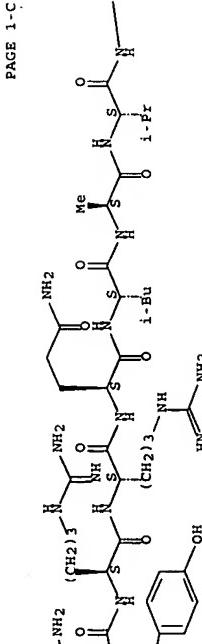
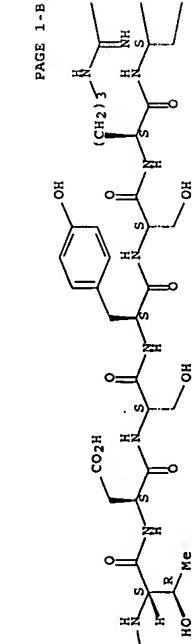
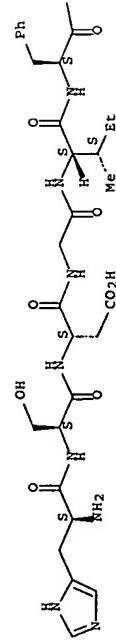
(sustained relaxant action of PACAP-27 analog on carbachol-induced contraction of guinea pig tracheal smooth muscle *in vitro*)

IT 175785-24-3
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Absolute stereochemistry.

PAGE 1-A



IT 175785-24-3
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study); USES (sustained relaxant action of PACAP-27 analog on carbachol-induced contraction of guinea pig tracheal smooth muscle in vitro)

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Absolute stereochemistry.



REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

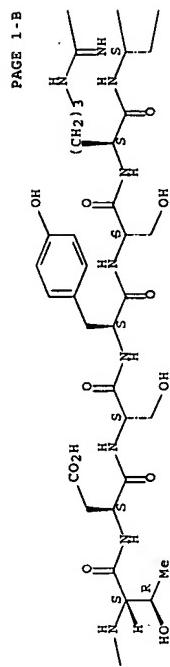
L34 ANSWER 4 OF 6 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1997-154810 CAPLUS Full-text
 DOCUMENT NUMBER: 126-15-812
 TITLE: Peptide bronchodilators
 INVENTOR(S): Kashimoto, Kazuhisa; Nagano, Yuniko
 SOURCE: Jpn. Kokai Tokkyo Koho, 13 pp.
 CODEN: JKXKAF
 DOCUMENT TYPE:
 LANGUAGE:
 FAMILY ACC. NBR. COUNT: 2
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 08333276	A	19961217	JP 1995-143581	19950619
CA 2196308	A1	19961217	CA 1996-2196308	19960616
CA 2196305	C	20001017		
WO 961814	A1	19961227	WO 1996-JP1543	19960616
W: AU, CA, CN, KR, RW: AT, BE, CH, DE, AU 9659112			ER, GB, IE, IT, LU, MC, NL, PT, SE AU 1396-59112	19960616
AU 682638	B2	19971009		
EP 796867	A1	19970924	EP 1996-916331	19960616

10/536880

EP 798867	B1	20031105	PAGE 1-B
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CN 1161043	B	20031015	19960606
CN 1124283	T	20031115	19960606
AT 253590		AT 1996-1916331	19970207
US 5856303	A	199930105	JP 1997-776815 JP 1995-143581 JP 1995-255370 WO 1996-01543
PRIORITY APPLN. INFO.:			A 19950609 A 19951002 W 19960606
ICM A61K018-22			
IC C07K014-575			
CC 1-9 (Pharmacology)			
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IT 176785-24-3P 176785-25-4P 186253-19-0P 186322-91-8P			
186767-52-2P 186767-54-4P			
186767-58-8P 186767-60-2P 186767-62-4P 186767-64-6P			
186844-12-2P 186844-13-3P 186844-14-4P			
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(peptide bronchodilators)			
IT 176785-24-3P 186767-50-0P 186767-52-2P			
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(peptide bronchodilators)			
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CN L-leucinamide, L-histidyl-L-seryl-L- α -aspartylglucyl-L-isoleucyl-L-phenylalanyl-L-threonyl-L- α -aspartyl-L-seryl-L-tyrosyl-L-seryl-L-arginyl-L-tyrosyl-L-arginyl-L-glutaminyl-L-leucyl-L-alanyl-L-leucyl-L-alanyl-L-alanyl-L-valyl-L-valyl (9CI) (CA INDEX NAME)			

10/536880



AB The human pituitary adenylylate cyclase-activating peptides and their pharmaceutical acceptable salts are claimed as bronchodilators. Thus 15 peptides were prepared, and their bronchodilator actions were tested in isolated guinea pig bronchial smooth muscle.

IC ICM A61K018-22

IC C07K014-575

CC 1-9 (Pharmacology)

Section cross-reference(s): 34

IT 176785-24-3P 176785-25-4P 186253-19-0P 186322-91-8P
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186767-54-4P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (therapeutic use); BIOL (biological study); PRP (Preparation); USBS (uses)

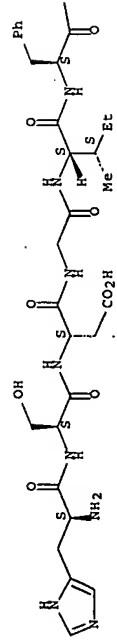
(peptide bronchodilators)

RN 176785-24-3 CAPDUS

CN L-leucinamide, L-histidyl-L-seryl-L- α -aspartylglucyl-L-isoleucyl-L-phenylalanyl-L-threonyl-L- α -aspartyl-L-seryl-L-tyrosyl-L-seryl-L-arginyl-L-tyrosyl-L-arginyl-L-glutaminyl-L-leucyl-L-alanyl-L-leucyl-L-alanyl-L-alanyl-L-valyl-L-valyl (9CI) (CA INDEX NAME)

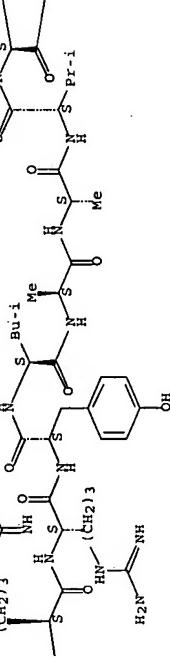
Absolute stereochemistry.

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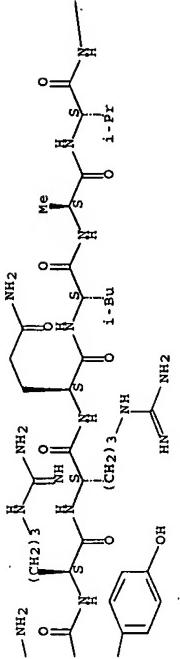


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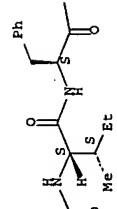
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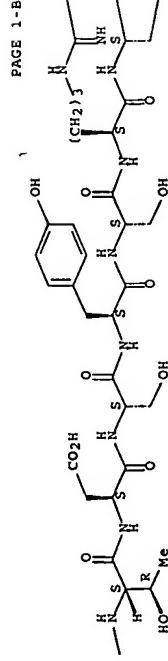
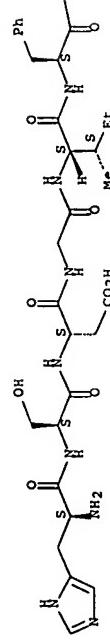


RN 186767-50-0 CAPLUS
CN Glycinamide, L-histidyl-L-seryl-L- α -aspartyl-L-leucyl-L-

phenylalanyl-L-threonyl-L- α -aspartyl-L-tyrosyl-L-seryl-L-arginyl-L-tyrosyl-L-arginyl-L-arginy-L-glutamyl-L-leucyl-L-alanyl-L-valyl-L-arginy-L-arginy-L-tyrosyl-L-leucyl-L-alanyl-L-alanyl-L-valyl-L-leucyl- (CA INDEX NAME)

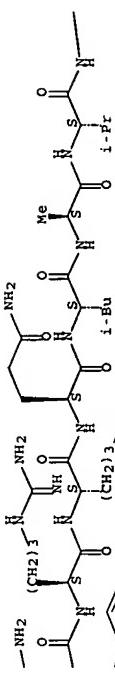
Absolute stereochemistry.

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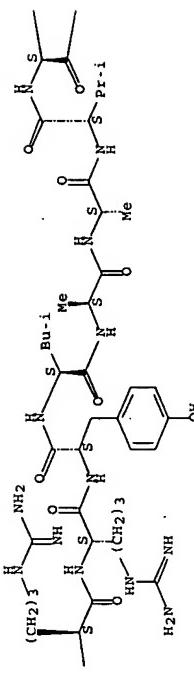


RN 186767-50-0 CAPLUS
CN Glycinamide, L-histidyl-L-seryl-L- α -aspartyl-L-leucyl-L-

phenylalanyl-L-threonyl-L- α -aspartyl-L-tyrosyl-L-seryl-L-arginyl-L-tyrosyl-L-arginyl-L-arginy-L-arginy-L-glutamyl-L-leucyl-L-alanyl-L-valyl-L-arginy-L-arginy-L-tyrosyl-L-leucyl-L-alanyl-L-alanyl-L-valyl-L-leucyl- (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-D



RN 186767-52-2 CAPLUS
CN L-Lysinamide, L-histidyl-L-seryl-L- α -aspartylglycyl-L-isoleucyl-L-phenylalanyl-L-threonyl-L- α -aspartyl-L-tyrosyl-L-seryl-L-arginyl-L-tyrosyl-L-arginyl-L-arginy-L-arginyl-L-tyrosyl-L-leucyl-L-alanyl-L-valyl-L-arginy-L-tyrosyl-L-leucyl-L-alanyl-L-alanyl-L-valyl-L-leucylglycyl- (9CI) (CA INDEX NAME)

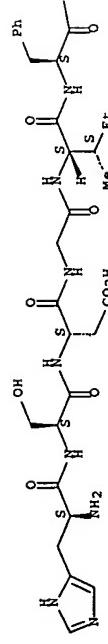
Absolute stereochemistry.

109

110

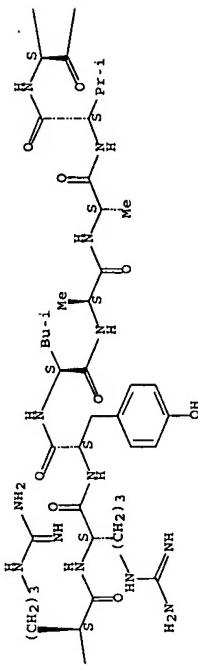
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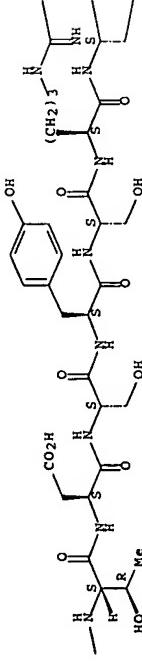


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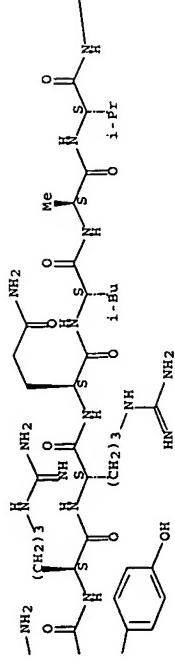
PAGE 1-D



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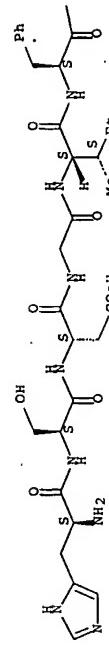


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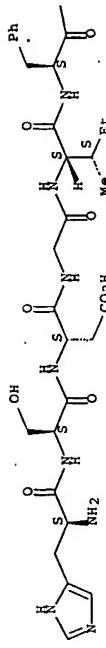


RN 186767-54-4 CAPLUS
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Absolute stereochemistry.



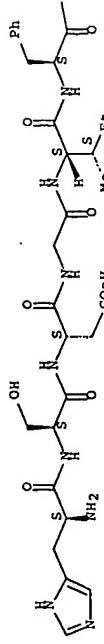
PAGE 1-E



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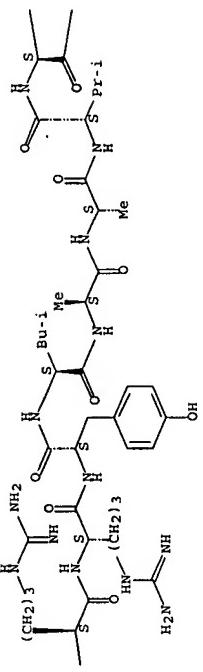
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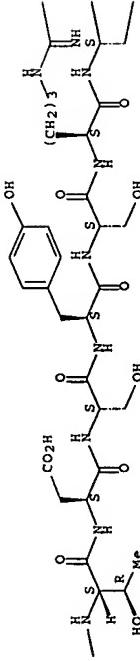


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PAGE 1-B



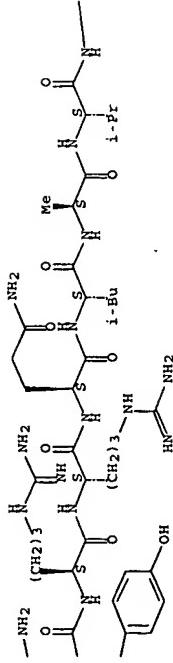
PAGE 1-E



REFERENCE COUNT:

6 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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L34 ANSWER 6 OF 6 CAPLUS COPYRIGHT 2007 ACS on STN
1996-286008 CAPLUS Full-text

DOCUMENT NUMBER: 124:331662
TITLE: Structure-activity relationship studies of PACAP-27 and VIP analogs

AUTHOR(S): Kashimoto, Kazuhisa; Nagano, Yumiko; Sutani, Yoshihiko; Hamanaka, Kazuya; Mizumoto, Takahiro; Tomizaki, Kin-Ya; Takahata, Hikari; Nagamoto, Akiko; Ohata, Akiko; et al.
CORPORATE SOURCE: ItoHam Foods INC, Central Research Institute, Ibaraki, 302-001, Japan
SOURCE: Peptide Chemistry (1996), Volume Date 1995, 33rd, 361-364

CODEN: PECHDP; ISSN: 0368-3698
PUBLISHER: Protein Research Foundation
DOCUMENT TYPE: Journal Article
LANGUAGE: English

AB We obtained the results that the duration of tracheal relaxant activity varied with modification of PACAP-27 and VIP mols. The degree of the duration of activities was BM-analog > native compound. These results show that there is a relation between the duration of activity and basicity of peptide caused by the number of basic amino acid residues in the sequence.

CC 1.3 (Pharmacology)
IT 37221-79-7, VIP 128606-20-2, Peptide PACAP 38 129669-75-6, Peptide PACAP 27 176785-24-3 176785-25-4 176785-26-5 176897-83-9
RL BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USSS (Uses)
(structure-activity relationship studies of PACAP-27 and VIP analogs)

115

116

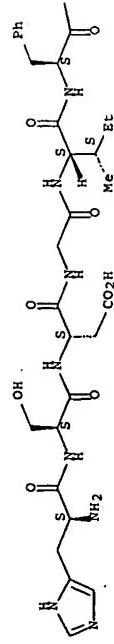
10/536880

IT 176785-24-3
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (structure-activity relationship studies of PACAP-27 and VIP analogs)

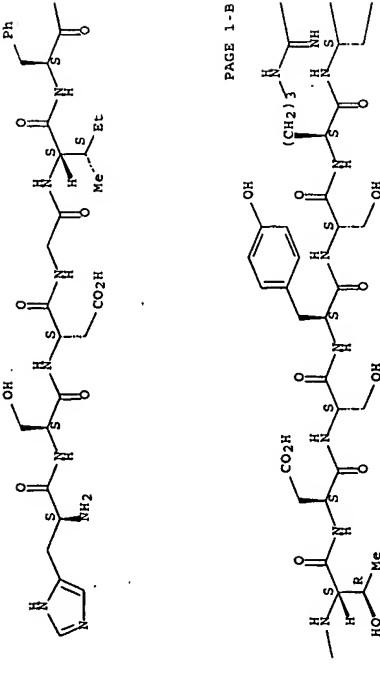
RN 176785-24-3 CAPUS
 CN L-leucinamide, L-histidyl-L-seryl-L- α -aspartylglycyl-L-isoleucyl-L-phenylalanyl-L-threonyl-L- α -aspartyl-L-seryl-L-tyrosyl-L-seryl-L-arginyl-L-tyrosyl-L-arginyl-L-arginyl-L-glutamyl-L-leucyl-L-alanyl-L-valyl-L-tyrosyl-L-arginyl-L-tyrosyl-L-leucyl-L-alanyl-L-alanyl-L-valyl-L-valyl (CA INDEX NAME)

Absolute stereochemistry.

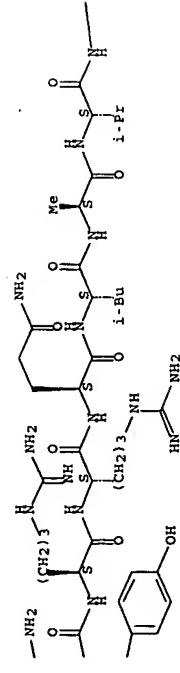
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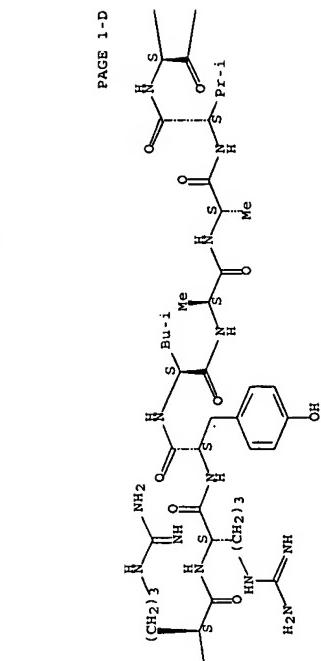
PAGE 1-B



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 \longrightarrow Bu-i \longrightarrow NH2

117

118

10/536880

10/536880

=> d his full

(FILE 'HOME' ENTERED AT 10:20:09 ON 30 JAN 2007)

FILE 'REGISTRY' ENTERED AT 10:20:41 ON 30 JAN 2007
L1 389 SEA ABB=ON PLU=ON HSDA[IV] FT[DEA] [SND] Y [ST] R [YL] RRQLAVRRYLAASQFP

FILE 'CAPLUS' ENTERED AT 10:24:06 ON 30 JAN 2007
L2 349 SEA ABB=ON PLU=ON L1

FILE 'REGISTRY' ENTERED AT 10:24:18 ON 30 JAN 2007
L3 111096 SEA ABB=ON PLU=ON AMI?/ANTE
130 SEA ABB=ON PLU=ON L1 AND L3

FILE 'CAPLUS' ENTERED AT 10:26:18 ON 30 JAN 2007
L5 266 SEA ABB=ON PLU=ON L4

FILE 'REGISTRY' ENTERED AT 10:26:42 ON 30 JAN 2007
L6 54 SEA ABB=ON PLU=ON HSDA[IV] FT[DEA] [SND] Y [ST] R [YL] RRQLAVRRYLAASQSP

FILE 'CAPLUS' ENTERED AT 10:29:23 ON 30 JAN 2007
L7 4 SEA ABB=ON PLU=ON L6

FILE 'REGISTRY' ENTERED AT 10:30:11 ON 30 JAN 2007
L8 30 SEA ABB=ON PLU=ON L6 AND L3

FILE 'CAPLUS' ENTERED AT 10:30:24 ON 30 JAN 2007
L9 4 SEA ABB=ON PLU=ON L8

FILE 'REGISTRY' ENTERED AT 10:30:32 ON 30 JAN 2007
FILE 'STNGUIDE' ENTERED AT 10:31:59 ON 30 JAN 2007

FILE 'REGISTRY' ENTERED AT 12:08:18 ON 30 JAN 2007
L10 STRUCTURE uploaded
L11 0 SEA SSS SAM L10

FILE 'CAPLUS' ENTERED AT 12:09:29 ON 30 JAN 2007
E US2005-536880 /APPS
1 SEA ABB=ON PLU=ON US2005-536880 /AP
D SCA
SEL RN

FILE 'REGISTRY' ENTERED AT 12:09:52 ON 30 JAN 2007
L12 36 SEA ABB=ON PLU=ON (12/317-03-7/B1 OR 134582-08-4/B1 OR
137061-48-4/B1 OR 37221-79-7/B1 OR 4 0077-57-4/B1 OR 475083-13-7
/B1 OR 7003168-76-9/B1 OR 700368-79-2/B1 OR 700358-81-6/B1 OR
700368-83-8/B1 OR 700368-85-0/B1 OR 700368-87-2/B1 OR 700368-90
-7/B1 OR 700368-92-9/B1 OR 700368-94-1/B1 OR 700368-96-3/B1 OR
7003168-98-5/B1 OR 700369-00-2/B1 OR 700359-02-4/B1 OR 702686-30
-4/B1 OR 702686-11-5/B1 OR 702686-33-7/B1 OR 702686-36-0/B1 OR
702686-37-1/B1 OR 702686-38-2/B1 OR 702686-42-8/B1 OR 702686-49
-5/B1 OR 702686-52-0/B1 OR 702686-53-1/B1 OR 702686-55-3/B1 OR
702686-56-4/B1 OR 702686-57-5/B1 OR 702686-58-6/B1 OR 702686-59
-7/B1 OR 703414-61-3/B1 OR 735327-72-7/B1)

10/536880

L14 0 SEA SUB=L13 SSS SAM L10
L15 * 11 SEA SSS FULL L10
SAVE TEMP L15 HA880STR10L/A

FILE 'CAPLUS' ENTERED AT 12:11:48 ON 30 JAN 2007

L16 * 9 SEA ABB=ON PLU=ON L15
L17 1 SEA ABB=ON PLU=ON L16 AND L12
L18 9 SEA ABB=ON PLU=ON L9 OR L16

L19 2952 SEA ABB=ON PLU=ON MATSUMOTO A?/AU
L20 4255 SEA ABB=ON PLU=ON ENDO K?/AU
L21 118 SEA ABB=ON PLU=ON ONOUE S?/AU

L22 13 SEA ABB=ON PLU=ON L19 AND (L120 OR L21)
L23 16 SEA ABB=ON PLU=ON L20 AND L21
L24 23 SEA ABB=ON PLU=ON (L122 OR L23)
L25 3 SEA ABB=ON PLU=ON (L119 OR L20 OR L21) AND (L16 OR L19)

FILE 'REGISTRY' ENTERED AT 12:14:39 ON 30 JAN 2007
L26 62 SEA ABB=ON PLU=ON L6 OR L15
L27 ANALYZE PLU=ON L26 1 - LC : 4 TERMS
D COST

FILE 'TOXCENTER' ENTERED AT 12:15:18 ON 30 JAN 2007
L28 1 SEA ABB=ON PLU=ON L26
L29 20 SEA ABB=ON PLU=ON (L22 OR L23)

FILE 'MEDLINE' EMBASE, BIOSIS' ENTERED AT 12:15:53 ON 30 JAN 2007
L30 42 SEA ABB=ON PLU=ON L24
L31 20 DUP REM L30 (22 DUPLICATES REMOVED)

ANSWERS '1-12' FROM FILE MEDLINE
ANSWER '13' FROM FILE EMBASE
ANSWERS '14-20' FROM FILE BIOSIS

FILE 'STNGUIDE' ENTERED AT 12:16:16 ON 30 JAN 2007
D COST

FILE 'REGISTRY' ENTERED AT 12:16:30 ON 30 JAN 2007
D L8 RN CN SQL NTE LC KWIC 1-30

FILE 'CAPLUS' ENTERED AT 12:21:11 ON 30 JAN 2007
D STAT QUB L24
D STAT QUB L25

FILE 'MEDLINE' EMBASE, BIOSIS' ENTERED AT 12:21:41 ON 30 JAN 2007
D STAT QUB L30

FILE 'TOXCENTER' ENTERED AT 12:21:53 ON 30 JAN 2007
D STAT QUB L29

FILE 'CAPLUS' MEDLINE, EMBASE, BIOSIS, TOXCENTER' ENTERED AT 12:22:17 ON
30 JAN 2007
L33 32 DUP REM L32 L30 L29 (55 DUPLICATES REMOVED)

ANSWERS '1-25' FROM FILE CAPLUS
ANSWER '26' FROM FILE MEDLINE
ANSWERS '27-32' FROM FILE BIOSIS

D IB1B ABS HITIND HITSTR L33 1-25
D TALL L33 26-32

FILE 'REGISTRY' ENTERED AT 12:24:03 ON 30 JAN 2007

FILE 'CAPLUS' ENTERED AT 12:24:08 ON 30 JAN 2007

D STAT QUE L9

D STAT QUS L16

6 SEA ABB=ON PLU=ON (L9 OR L16) NOT L32

FILE 'TOXCENTER' ENTERED AT 12:24:42 ON 30 JAN 2007

D STAT QUE L28

0 SEA ABB=ON PLU=ON L28 NOT L29

FILE 'CAPLUS' ENTERED AT 12:25:57 ON 30 JAN 2007

D IBIB ABS HITIND HITSTR L14 1-6

FILE 'TOXCENTER' ENTERED AT 12:25:59 ON 30 JAN 2007

FILE HOME

FILE REGISTRY

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 29 JAN 2007 HIGHEST RN 918776-45-1

DICTIONARY FILE UPDATES: 29 JAN 2007 HIGHEST RN 918776-45-1

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH June 30, 2006

Please note that search-term pricing does apply when conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

<http://www.cas.org/ONLINE/UG/regprops.html>

FILE CAPLUS

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FILE COVERS 1907 - 30 Jan 2007 VOL 146 ISS 6

FILE LAST UPDATED: 29 Jan 2007 (20070129/ED)

Effective October 17, 2005, revised CAS Information Use Policies apply. They are available for your review at:

<http://www.cas.org/infopolicy.html>

FILE STNGUIDE
FILE CONTAINS CURRENT INFORMATION.

10/536880

LAST RELOADED: Jan 26, 2007 (20070126/UP).

FILE TOXCENTER

FILE COVERS 1907 TO 23 Jan 2007 (20070123/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

The MEDLINE file segment has been updated with 2007 MeSH terms and see HELP RLOAD for details.

TOXCENTER thesauri in the /CN, /CT, and /MN fields incorporate the MESH 2007 vocabulary.

FILE MEDLINE

FILE LAST UPDATED: 27 Jan 2007 (20070127/UP). FILE COVERS 1950 TO DATE.

All regular MEDLINE updates from November 15 to December 16 have been added to MEDLINE, along with 2007 Medical Subject Headings (MeSH(R)) and 2007 tree numbers.

The annual reload will be available in early 2007.

This file contains CAS Registry Numbers for easy and accurate substance identification.

FILE EMBASE

FILE COVERS 1974 TO 30 Jan 2007 (20070130/ED)

EMBASE is now updated daily. SDI frequency remains weekly (default) and biweekly.

This file contains CAS Registry Numbers for easy and accurate substance identification.

FILE BIOSIS

FILE COVERS 1969 TO DATE.
CAS REGISTRY NUMBERS AND CHEMICAL NAMES (CNS) PRESENT
FROM JANUARY 1969 TO DATE.

RECORDS LAST ADDED: 24 January 2007 (20070124/ED)

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